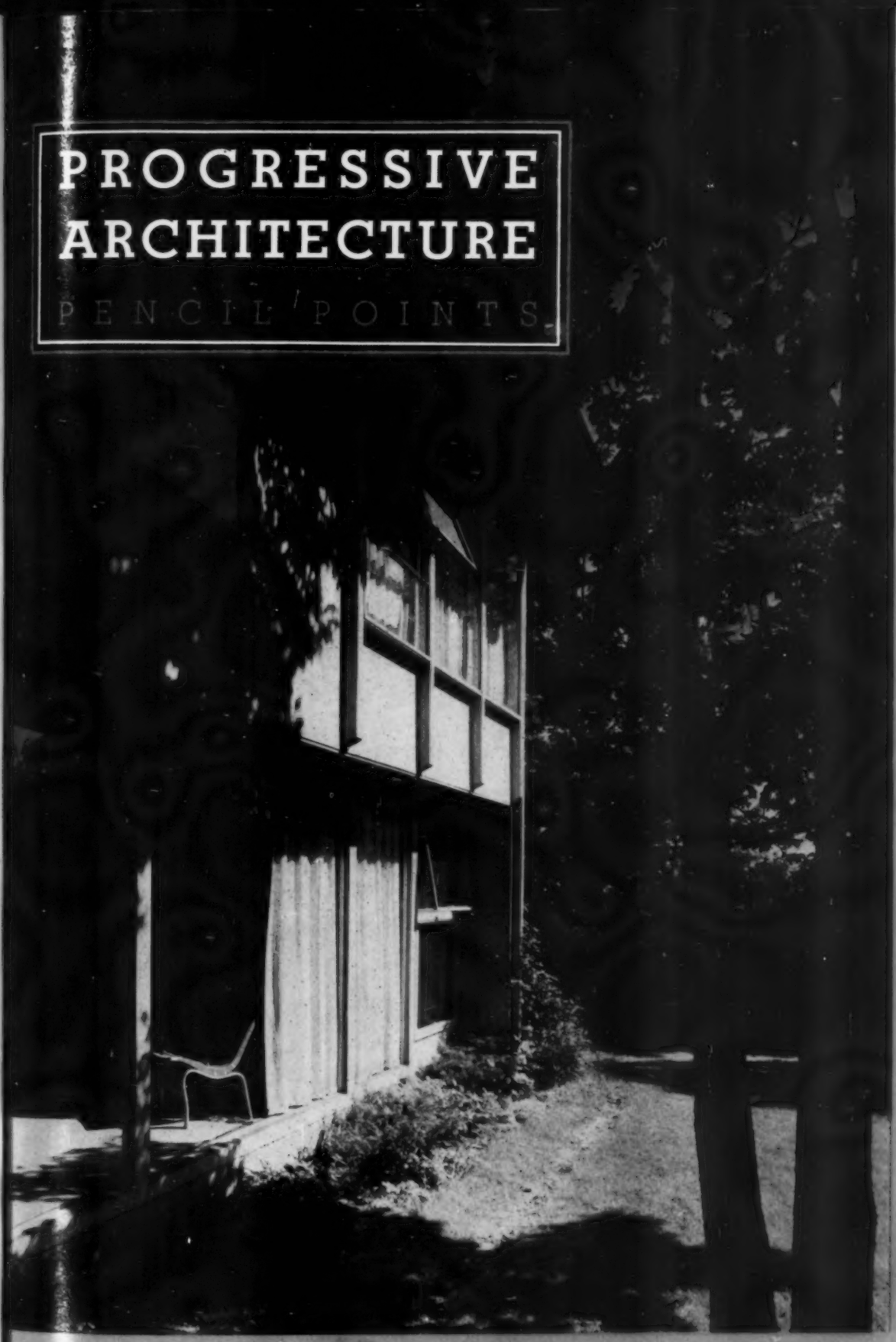
PROGRESSIVE ARCHITECTURE

PENCIL POINTS



DEC 13 1946

HOUSES

LIGHT CONTROL

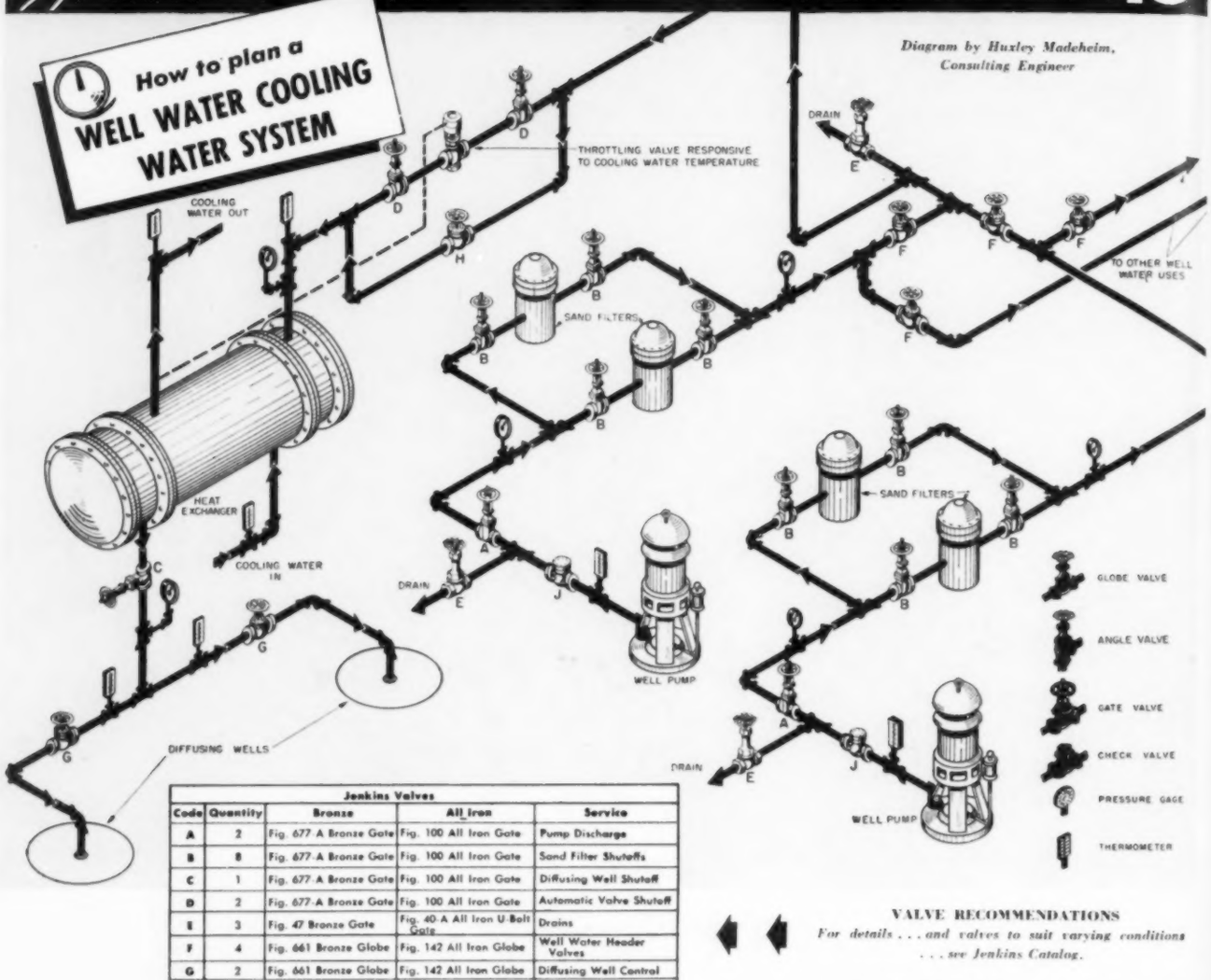
Architectural Library

OCTOBER 1946

Jenkins PRACTICAL PIPING LAYOUTS 15

How to plan a WELL WATER COOLING WATER SYSTEM

Diagram by Huxley Madeheim, Consulting Engineer



Jenkins Valves				
Code	Quantity	Bronze	All Iron	Service
A	2	Fig. 677 A Bronze Gate	Fig. 100 All Iron Gate	Pump Discharge
B	8	Fig. 677-A Bronze Gate	Fig. 100 All Iron Gate	Sand Filter Shutoffs
C	1	Fig. 677-A Bronze Gate	Fig. 100 All Iron Gate	Diffusing Well Shutoff
D	2	Fig. 677-A Bronze Gate	Fig. 100 All Iron Gate	Automatic Valve Shutoff
E	3	Fig. 47 Bronze Gate	Fig. 40-A All Iron U-Bolt Gate	Drains
F	4	Fig. 661 Bronze Globe	Fig. 142 All Iron Globe	Well Water Header Valves
G	2	Fig. 661 Bronze Globe	Fig. 142 All Iron Globe	Diffusing Well Control
H	1	Fig. 661 Bronze Globe	Fig. 142 All Iron Globe	Manual Bypass about Automatic Valve
J	2	Fig. 295 Bronze Swing Check	Fig. 295 All Iron Swing Check	Pump Discharge Check

Water cooling at a lower cost than with cooling towers can often be accomplished with well water, which is available in adequate supply throughout large areas of the nation, at a constant temperature of 50° to 60° in all seasons.

Heat exchangers are frequently used, because of the clogging, scale-forming or corrosive action of many well waters. This confines the flow of cooling water to the tubes, which can be readily cleaned or replaced. Sand filters are included to prevent the carry-over of sand into the equipment. In certain areas the use of a heat exchanger and the return of the water to the ground uncontaminated is mandatory. Such requirements are met by this layout.

Because many well waters rapidly attack some copper base alloys when associated with ferrous metals, all-bronze valves or alternate all-iron valves are listed.

Other types and pressure ranges of Jenkins Valves can be used for this type of layout, according to the factors involved. Consultation with accredited piping engineers and contractors is recommended when adapting these suggestions to your own requirements, or when planning any major piping installation.

VALVE RECOMMENDATIONS

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PROGRESSIVE ARCHITECTURE

PENCIL POINTS

OCTOBER 1946 **10**

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RP REINHOLD

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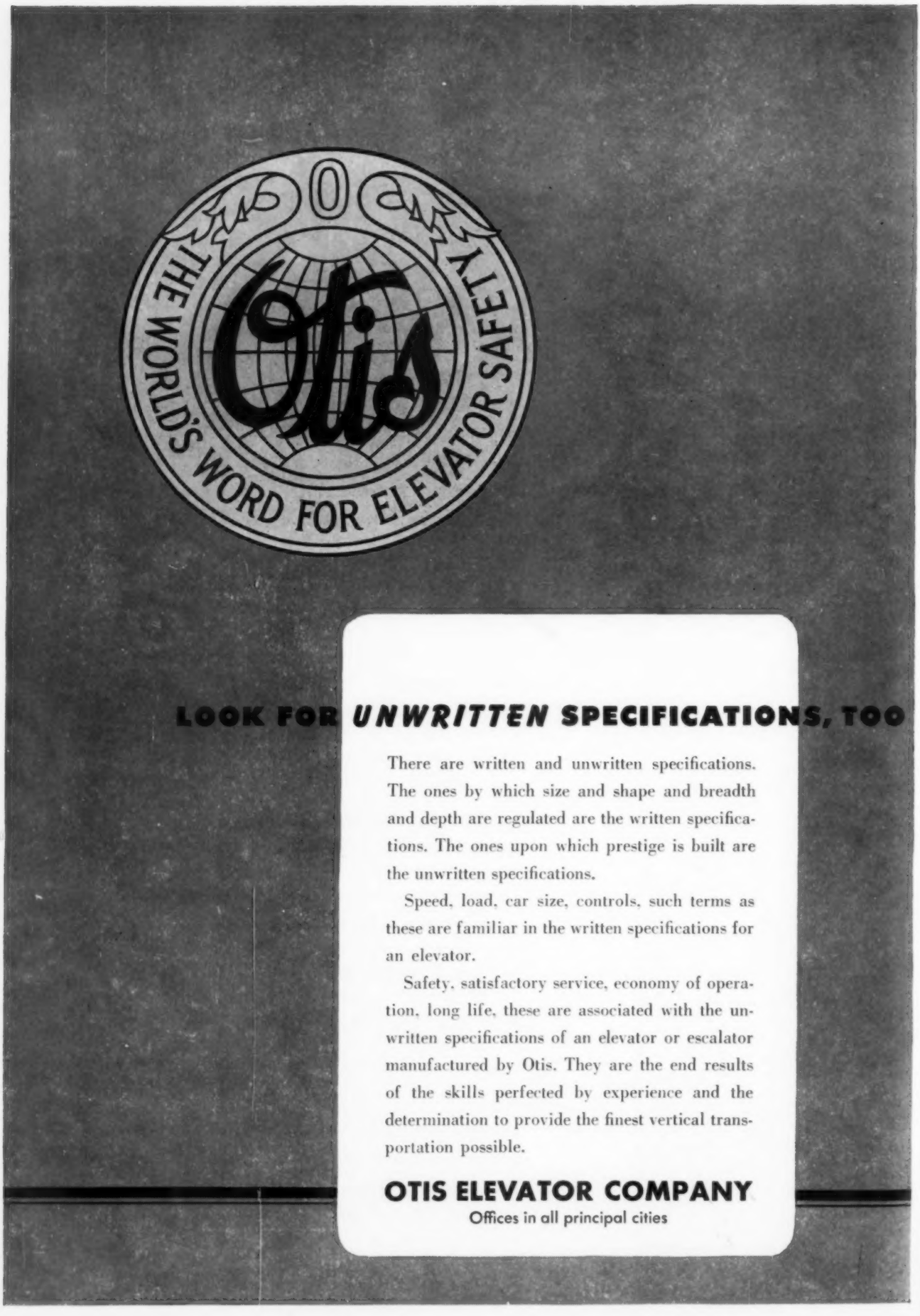

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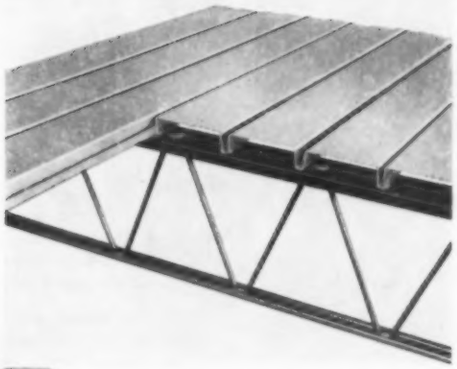

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VIEWS

FAMILIARITY HELPS

Dear Editor:

Thank you for your kind words in the July editorial of PROGRESSIVE ARCHITECTURE. I shall see that it is read in our next chapter meeting, particularly the last paragraph, because I have been accused of running a sort of Dr. Jekyl and Mr. Hyde office by some of the members of our profession, due to the fact that we build houses for sale on our own land and, at the same time, conduct a professional practice of architecture for other building.

We find that the construction has decided advantages as we soon become familiar with the cost of all the various parts of the work, so much so, that we can subcontract our private work to subcontractors thereby increasing our fees to 16 percent, and at the same time save the owners money over a general contract bid with an architectural fee of 6 percent.

KENNETH W. DALZELL
Short Hills, N. J.

KNOWS FROM EXPERIENCE

Dear Editor:

When I picked up your editorial, "The Small House Dream World," it took me back to the Miami Convention of the A.I.A. when I took the floor and advised architects to do exactly what is covered by the last paragraph. I told my brother architects that if we think we know so much more than the developer or the speculative builder or the real estate operator to whom we render professional services, then the time has come to show the public. I advised my brother architects that I wasn't just griping or theorizing, that is exactly what I did during the war when I built defense housing. I told them that I kept myself busy, had a lot of fun, and made myself some money.

While my oldest son was in the Pacific, I purchased land in Boston and we have gotten under way on a veterans' housing development. It is moving along satisfactorily. We are hoping to produce better houses and make them available to the veterans for less money than most of the speculative builders are asking. Our first project will total 58 units and we already have over 200 applications from veterans. I presume that the allocation of these houses will have to be done by pulling names out of a hat except, of course, in very urgent hardship cases.

After my presentation at the Convention, quite a number of architects approached me as to whether or not it is ethical for an architect to go into the construction business. I told them then that, frankly, it was my opinion that there is nothing in the A.I.A. Code of Ethics which prohibits an architect from owning real estate, whether purchased or directly developed by the architect.

I, personally, have found my experiences in the construction of small homes not only a lot of fun, but an interesting education, and, what is more important, I made myself some real money, and the buyers of the houses have been perfectly happy and have not yet stopped singing the praises of the man who produced them.

S. S. EISENBERG
Boston, Mass.

"Of course we don't want to give the impression that we're rushing you!"

A U.N.O. RESPONSIBILITY

Dear Editor:

Whatever one may feel about the demerits of a competition for smaller work, it is impossible to conceive of another method of choosing the right people to do this extraordinary job.

One of the less important failures of the League of Nations was architectural—the failure of its hugely expensive buildings to echo the simplicity of the ideals on which the League was founded, the earnest faith of common men with which it was blessed, or even the cultural enlightenment which it hoped to foster.

The architectural environment of this second and probably last attempt to organize humanity must be more worthy. It must have dignity without pomposity, be inspiring without being theatrical, and non-national without being "internationalistic."

ROBIN PENLEIGH BOYD
Editor, *Smudges*
Melbourne, Australia

THE "POOR ASSISTANT"

Dear Editor:

Your architectural books are "streets" ahead of anything I have seen elsewhere. As regards PROGRESSIVE ARCHITECTURE, which I still refer to as PENCIL POINTS, for preference which I like better as a title, I always thought it good and I still think so, though I miss the pencil renderings of Guptill and Kautzky which were a delight prewar.

Good design is, of course, the aim of all architects however lowly, but the poor assistant seldom gets the chance to let himself go in this respect and must be satisfied with good drawings. I think a little more space could be given to this aspect—if only for the sake of the future architects, to keep up their interest.

M. W. A. JONES
Blackrock, Dublin, Eire

ALWAYS A GOOD TIME

Dear Editor:

This seems like a good time to make a few comments about the magazine that I have had in mind for some time. First, I hope you do not increase the size as the *Forum* did, because when we do save parts of the magazine they do not fit a standard file cabinet. Second, the magazine is easier to hold while reading. Third, would like to see some water color reproductions (or for that matter, any medium) not necessarily of architecture as PENCIL POINTS did some years ago for I still enjoy seeing what other people are doing in that line. Even reproductions of student work in the various schools would let the rest of us know what they are studying nowadays. Richard Neutra's sketches of Latin America were very interesting. Why be like the other two architectural magazines?

MELVIN T. WERNER
Berea, Ohio

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JOBS AND MEN

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MEN WANTED

THREE EXPERIENCED ARCHITECTURAL DRAFTSMEN for permanent positions in established firm of progressive city. Capable of developing complete working drawings from preliminary sketches; design ability desirable. Write age, experience, education, salary expected, when available. Also send recent photograph. Louis G. Hesselden, A.I.A., 403 N. 12th St., Albuquerque, New Mexico.

SEVERAL ARCHITECTURAL DRAFTSMEN, thoroughly experienced, able to prepare preliminaries, working drawings, etc., familiar all phases architectural drafting. Must think, draw along modern trend. Work on postwar theaters and diversified projects. Excellent opportunity for permanent position. Write education, experience, salary, to M. J. DeAngelis, R.A., 1404-1405 Temple Bldg., Rochester, N. Y.

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by Sedgwick

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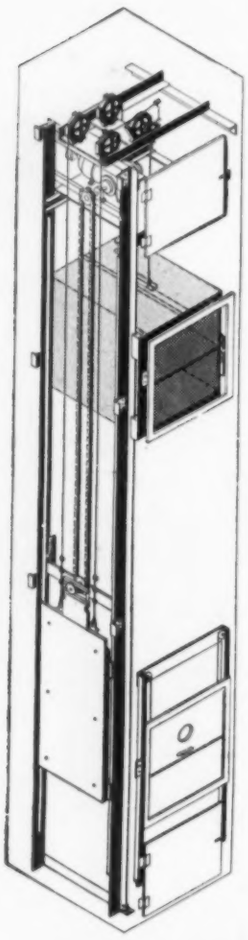

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(Continued on page 12)

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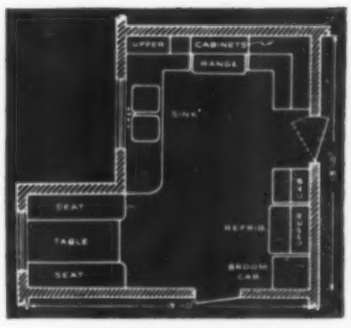

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JOBS AND MEN

(Continued from page 10)

tures such as highways and bridges. Theodore A. de Postels, A.I.A. Studio at 644 Riverside Drive, New York 31, N. Y. Audubon 3-1677.

ARCHITECTURAL ENGINEER. College graduate, 29, energetic, capable, three years' varied architectural engineering experience; recently completed three years' active duty in the Navy as naval architect. Desires position with progressive firm in or near Washington, D. C. Box 308, PROGRESSIVE ARCHITECTURE.

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ARCHITECT, experienced with hospitals, housing, hotels, schools, churches, commercial, public, and other types of buildings, wishes to work on partnership basis with progressive architect. Good all-around architectural man, good designer. Practiced for several years. Box 312, PROGRESSIVE ARCHITECTURE.

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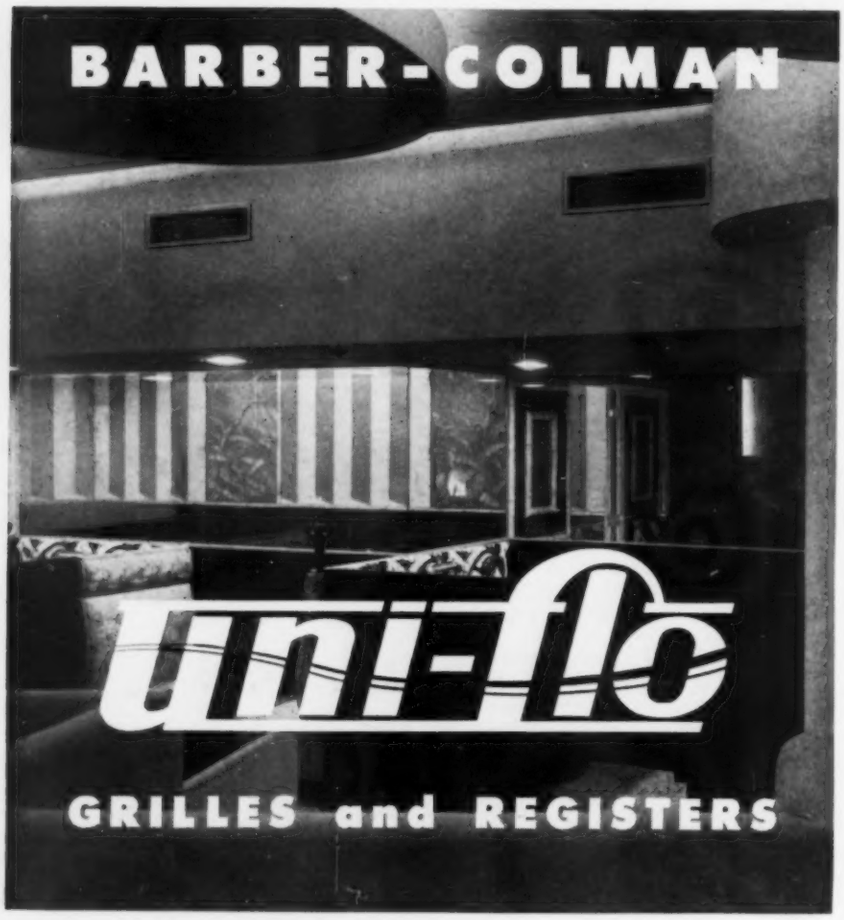

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NOTICES

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THEODORE HARTMAN, Architect, has joined STANLEY W. HOWE, A.I.A., in Monroe, Wis., to form a new architectural office at 1518 11th St.

W. EARLE OTIS, A.I.A., who has just returned from four years of service with the Army Air Forces, has formed a partnership with GAARWOOD M. GRIMES for the practice of architecture. They are located at 310 Tyler Bldg., Louisville, Ky.

Another new partnership has been announced by THORNE SHERWOOD, WILLIS NATHANIEL MILLS, and LESTER WICKHAM SMITH, all architects. Their offices are at 101 Park Ave., New York, N. Y., and 4 South St., Stamford, Conn.

CHARLES W. BEESTON, ROBERT D. STOTT, and RUSHMORE PATTERSON announce the opening of their offices at 587 Fifth Ave., New York, N. Y., under the name of BEESTON-STOTT-PATTERSON. They will practice product styling and specialized interior designing.

EUGENE STERNBERG, Czech Architect and Town Planner, has been appointed to the staff of Cornell University in the department of city and regional planning. Mr. Sternberg will begin his teaching duties this month.

PAUL SCHWEIKHER and WINSTON ELTING, Architects, announce the reopening of their offices on Meacham Road, Roselle, Ill.

HELEN STUART IRVIN has joined her father, WILLIS IRVIN, at their new architectural offices at 722 Greene St., Augusta, Ga.

WILLIAM H. ODELL, A.I.A., has become an associate member of the firm of DERRICK AND GAMBER, Architects. Offices of the firm are in the Hammond Bldg., Detroit, Mich.

(Continued on page 16)

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- Incubation Houses
- Industrial Dryers
- Kilns
- Mine Buildings
- Panel Boards for Mounting Controls
- Partitions
- Prefabricated Houses
- Radiator Recesses
- Roof Decks
- Service Stations
- Smelter Buildings
- Spray Booths
- Tobacco Storage Rooms
- Tourist Cabins
- Train Sheds

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THIS MONTH

ROBERT WOODS KENNEDY

HUSON JACKSON

CARL KOCH

The several houses at Snake Hill, Belmont, Massachusetts, presented in this issue are representative of the unpretentious work of the three youthful architects who collaborated on the group. First of the three is **Carl Koch,** whose buildings have been widely published in professional and newsstand magazines and repeatedly chosen for exhibitions and to illustrate the recognized books on contemporary architecture. These have ranged from houses in the Boston area, where he started his practice after training at Harvard and working in offices of Thomas E. Talmadge, Edward D. Stone, Sven Markelius, and Gropius and Breuer, to low-cost housing, a children's library in Fitchburg, Massachusetts, kitchens and test rooms for *McCall's* magazine. During the war he was a senior housing research technician for NHA; then with the Naval Officers Radar Training Schools in Hollywood, Florida, and St. Simon's Island, Georgia, having charge of development of plans for a new $3,000,000 Radar School to be built at Key West. He now is an assistant professor in the School of Planning and Architecture, M.I.T., and heads a corporation to develop and manufacture a prefabricated, lightweight, completely shop-assembled aluminum house for the popular market.

Huson Jackson, also known to the profession through publication of his work in magazines and books on contemporary design, formerly was associated with Koch and now is practicing architecture in New York as partner of John Hancock Callender. He received his architectural training at Harvard and worked in the offices of Charles Eames, Hilyard R. Robinson, and Gropius and Breuer, before starting practice in Boston in collaboration with Joseph P. Richardson. Houses and low-cost structural methods have held his attention, but he also has designed industrial, commercial, and service buildings in New York, New England, and St. Louis. Until the first of this year he was a member of Plan-Tech Associates, of New York.

A native of Boston, **Robert Woods Kennedy** also was trained at Harvard, following a year at L'Ecolé des Beaux Arts in Paris, and has gained his professional experience in the office of Gropius and Breuer, as a project planner for USHA, FPHA, and FWA. He now is an assistant professor in the School of Planning and Architecture, M.I.T., and conducts his professional practice with Theodore Jordan.

Other houses presented this month are by **Frank Lloyd Wright,** who sent us one of his provocative smaller houses rich in materials and the distinctive forms of the F.L.W. manner; and by **William Wilson Wurster** whose California houses are justly famed for their deft integration with the natural advantages of that state's materials and building sites.

(Continued on page 16)

NEXT MONTH

● Five notable hospitals chosen to offer a cross-section of the urgent planning problem in this institutional field will be pictured, analyzed, and discussed critically in November. With the collaboraton of Isadore Rosenfield, prominent consultant on hospital planning, the editors will attempt an evaluation of these several examples. Each has been lifted above usual standards by intensive study by the designers—Kelly & Gruzen, architects-engineers of New York; Dent & Aydelotte, architects of Memphis; Eric Mendelsohn, architect of San Francisco; Stonorov & Kahn, associated architects of Philadelphia; and the planners of U. S. Public Health Service.

● A plea for rational control of urban growth and development—based on principles of creative design rather than the too-familiar restrictive sort of zoning—is made by Arthur C. Holden in "Is Zoning An Impediment to Good Design?" to be featured in the Materials and Methods section. For guidance of architects who need more than rule-of-thumb knowledge of pipe sizes, a second article, "Hydraulics of Residential Water Supply Piping Design" by Lewis H. Kessler, also will be included next month.

Is your Tile-Tex reference file Complete?

In Sweet's Architectural File, you will find a comprehensive presentation of specification and product data on Tile-Tex products. There are four other Tile-Tex pamphlets which supplement this information and are of specific interest to architects.

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LOOK TO Tile-Tex IN '46
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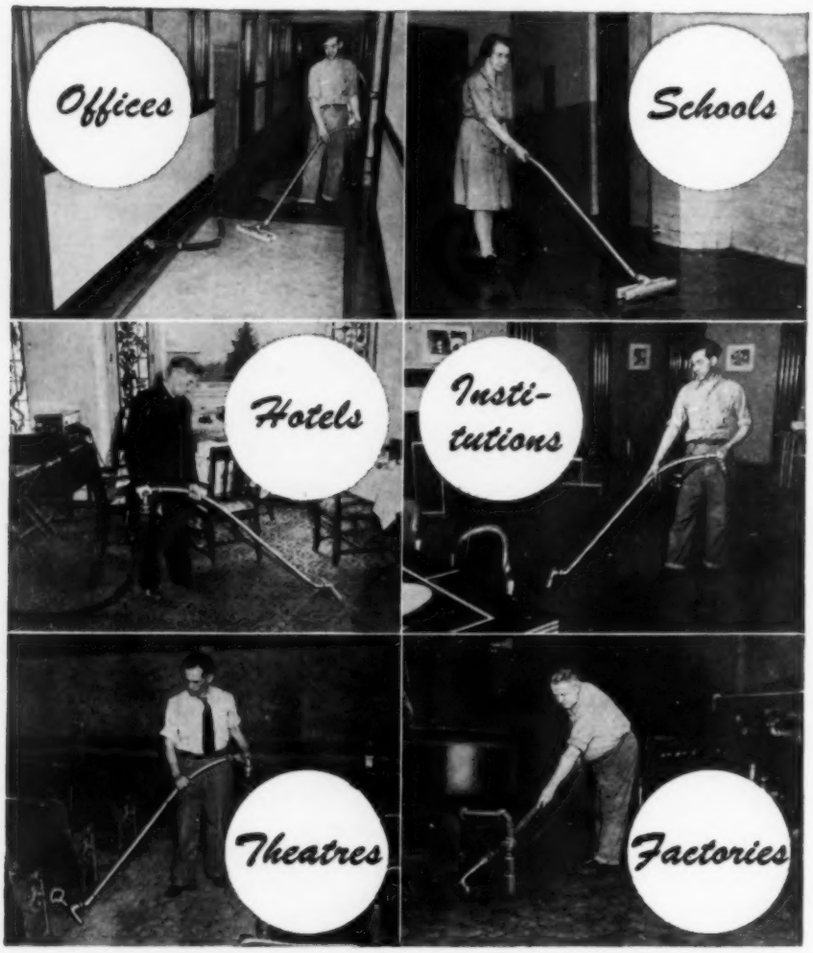
THIS MONTH

(Continued from page 14)

When George Cary, Jr., decided some airport hotels should be designed he approached Dr. Walter Gropius, who referred him to **Fred Bassetti**, a Harvard graduate student now working for Alvar Aalto in his Boston office and developing furniture for production. His professional experience, since graduating from the architectural course at the University of Washington, has included two years as a project planner of war housing and employment as a furniture designer for Hans G. Knoll of New York. In collaboration with his wife, Mary Wilson, interior designer, Bassetti is designing jewelry, furniture, products, etc. He admits that spare hours are mostly spent with friends "from back home in discussing (1) the merits of the Puget Sound region, compared to the rest of the world, and (2) how to revolutionize present day architectural education, when educators generally don't believe in change."

FRANK LLOYD WRIGHT

FRED BASSETTI



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NOTICES

KENNETH B. CLARK and LAWRENCE A. ENERSEN have formed a partnership for the practice of architecture and site planning with offices at 1202 Sharp Bldg., Lincoln, Neb.

The opening of the firm of OSMUNDSON, STALEY & GIBSON, 3409 Grand Ave., Oakland, Calif., has been announced. The firm offers a service in landscape design and development of residential properties, parks, gardens, and institutional and industrial sites.

CORTLAND VAN DYKE HUBBARD, recently returned from service with the United States Naval Reserve, has resumed his practice of architectural and illustrative photography. His office is located at 2201 Chestnut St., Philadelphia, Pa.

WALLACE G. ATKINSON has announced the reopening of an office for the practice of landscape architecture and site planning engineering at 520 N. Michigan Ave., Chicago, Ill.

PAUL W. DRAKE, A.I.A., announces the removal of his offices from 41-43 Maple St. to 100 Summit Ave., Summit, N. J.

(Continued on page 20)

ON JOBS THAT ARE TOO TOUGH FOR OTHER INSULATING MATERIALS . . .

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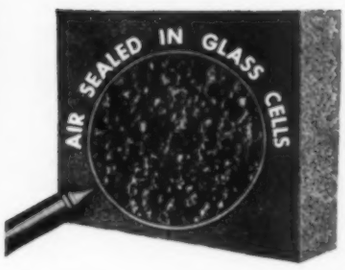
Architect: E. Brielmaier & Sons Co., 735 N. Water St., Milwaukee, Wis.



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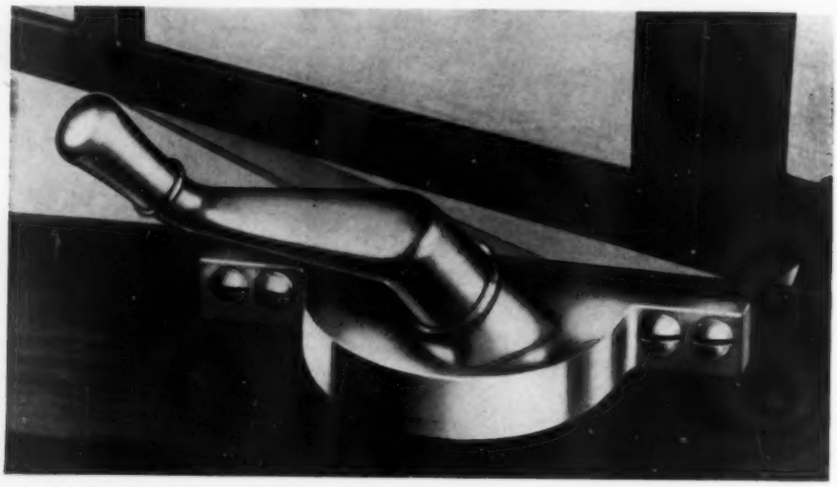

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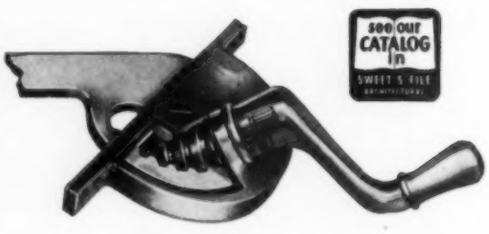

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NOTICES

(Continued from page 16)

J. LAWRENCE HOPP, A.I.A., has announced the resumption of his architectural practice with offices located at 654 Washington Rd., Mount Lebanon, Pittsburgh, Pa.

MATTHEW B. EHRLICH has opened an office for the practice of architecture in the Crozier Bldg., 1420 Chestnut St., Philadelphia, Pa.

RAYMOND M. MARLIER, LAWRENCE WOLFE, and B. KENNETH JOHNSTONE have announced a new partnership under the name of MARLIER, WOLFE & JOHNSTONE. Their architectural offices are located in the Empire Bldg., Pittsburgh, Pa.

ALBERT HALSE, formerly connected with AUSTIN CO. at 19 Rector St., New York, N. Y., has joined the staff of Columbia University's School of Architecture where he will instruct in freehand drawing and rendering.

ROBERT A. KRIDER, Architect, has opened an office in the Commerce Bldg., Erie, Pa., following his discharge from the Marine Corps.

ARTHUR FEHR and CHARLES GRANGER have announced the reopening of their office for the practice of architecture and urban planning at 502 East Fifth, Austin, Tex.

MENDELSOHN, DINWIDDIE & HILL have announced the association of David B. Gideon, formerly with the Engineer Corps, U.S.A. Mr. Gideon will hold the position of General Manager of the firm which is located at 233 Sansome St., San Francisco, Calif.

JOHN A. CAPONE, A.I.A., has announced the opening of an office at 487 Orange St., Newark, N. J.

MARIE FROMMER, R.A., has reopened her office of architecture at 140 West 57th St., New York, N. Y.

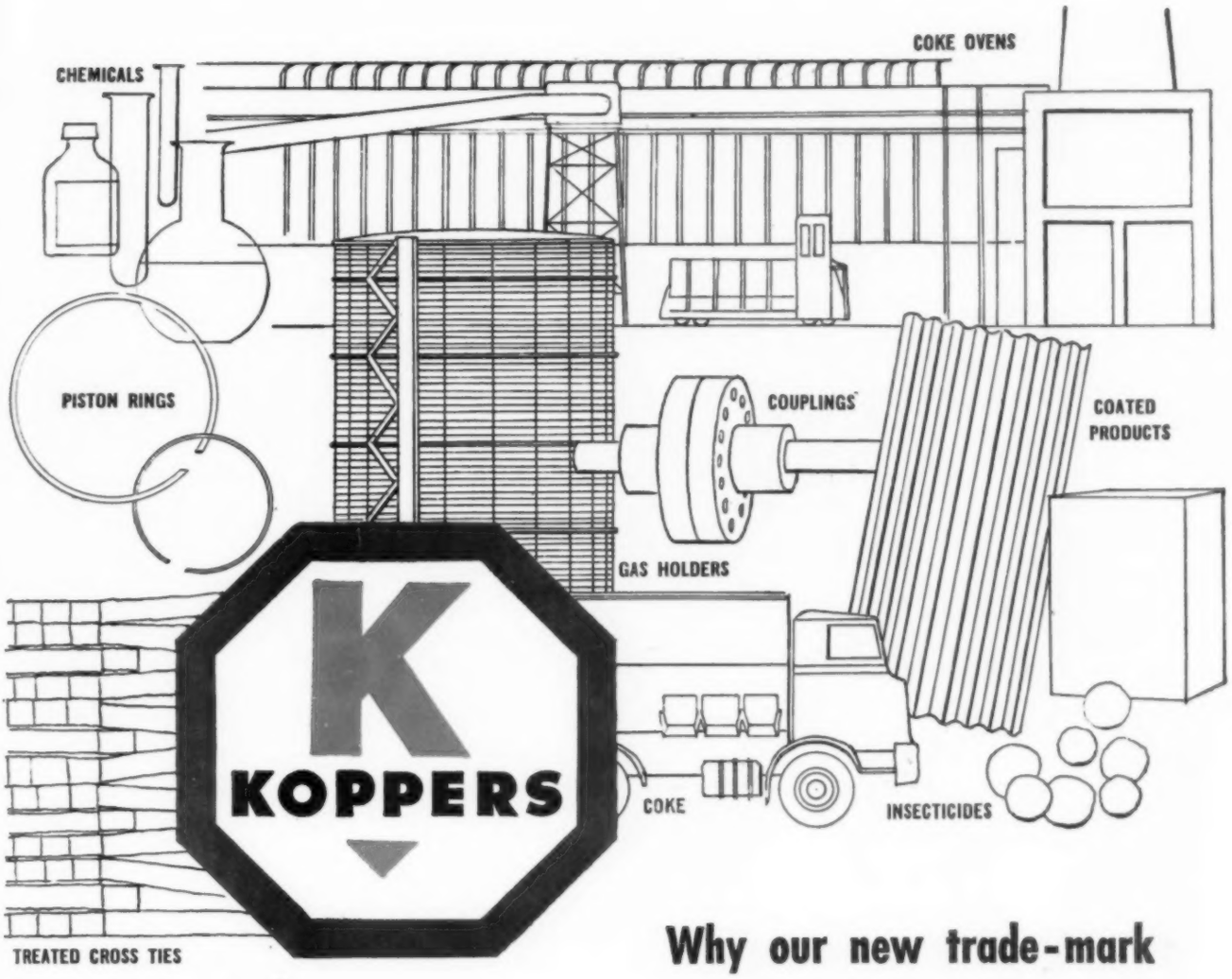
S. PORTER GRAVES, JR., and WALTER D. TOY, JR., announce the opening of offices for the general practice of architecture as GRAVES & TOY, Architects, at 1100 South Clarkson St., Charlotte, N. C.

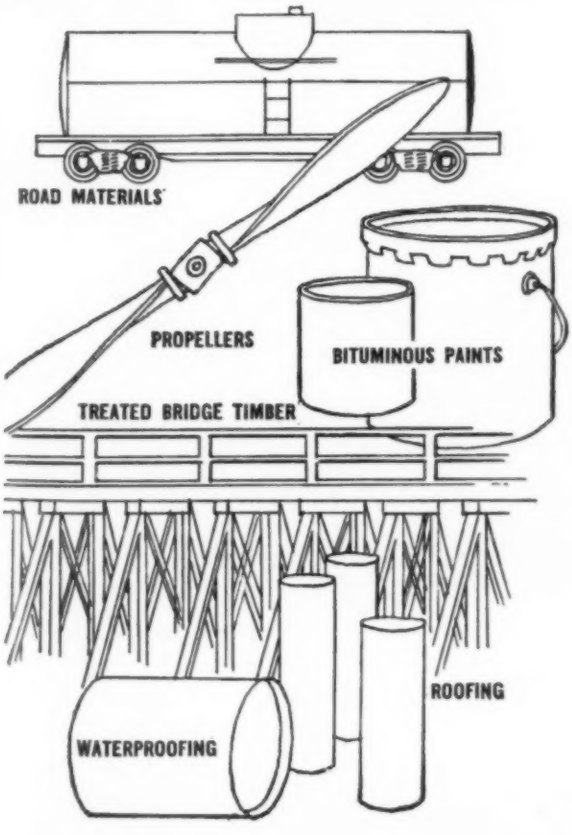
MARCEL BREUER has announced the opening of a new office for architecture, planning research, and design at 438 East 88th St., New York, N. Y.

ROBERT W. KENNEDY and THEODORA JORDAN have announced the opening of an architectural office at 687 Boylston St., Boston, Mass.

ROBERT E. ALEXANDER, A.I.A., has announced the opening of an office for architectural services and community planning at Baldwin Hills Village Club House, Rodeo Rd., Los Angeles, Calif.

Another architectural office has been opened by THOMAS E. GREACEN II at 1010 Winbern St., Houston, Tex.





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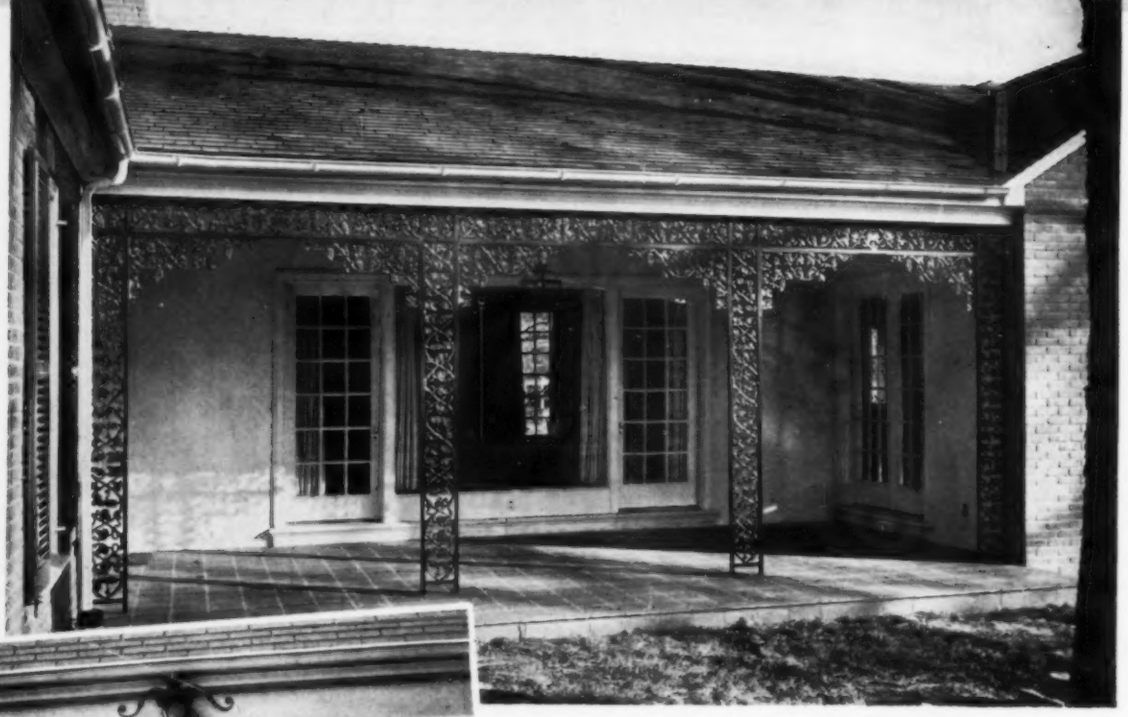

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APPROACHING MATURITY

PROGRESSIVE ARCHITECTURE has an established policy of publishing several houses each month, expanding this coverage occasionally by an issue—such as this one—largely devoted to important residential work.

The pressing social problem at the moment is the minimum housing unit—so pressing that moderate sized homes may not be built. Still we believe that proper emphasis must even now be placed on the house designed for a particular family, the house which is large enough, and is on a sufficient piece of ground to justify individual planning, selective use of materials and methods of construction, and integrated, appropriate expression.

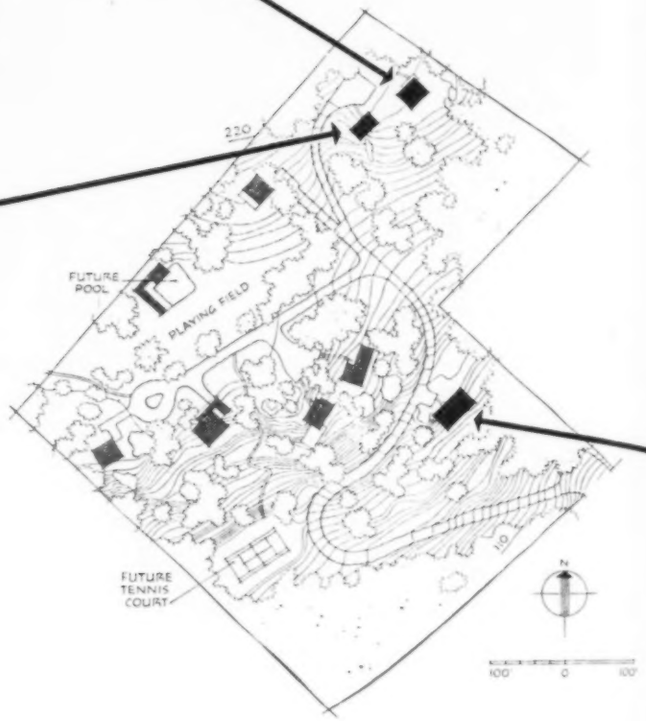
Prefabricated houses produced from a basic prototype are needed; yet that very prototype, in time, will reflect certain advances discovered by designing the large house today. Simple use of available materials is the need today; yet those very materials and the simplicity of their use will often evolve from experiments made in the larger house. There are indications of improved design in the development houses which will be built by the hundred thousands in our current "crisis"; those improvements are largely a result of well designed individual houses published in the last half dozen years. Planned neighborhoods are the hope for better community living in the period ahead; the reasons for neighborhood planning are obvious when the houses are like those on Snake Hill.

We believe that the five houses in this issue are an important proof of approaching maturity in this field of architecture. We feel that they will, in their turn, exert a powerful influence on all residential design. We think that they confirm our policy of documenting, regularly and fully, progress in the design of residential architecture.

The Editors

2 LORD HOUSE ..... Page 8

3 KRIEBEL HOUSE ..... Page 63



3 NEW HOUSES AT . . . . . SNAKE HILL

Publication of three new houses at Snake Hill is a matter of extraordinary architectural interest. The original five houses at Snake Hill designed by Carl Koch constitute one of the best known and most significant groups of contemporary houses in the world. The three new ones, designed by Koch in collaboration with Huson Jackson and Robert Woods Kennedy, are part of the same cooperative development on the slopes of a ledge-burdened, wooded hillside overlooking a broad panorama of Metropolitan Boston. Of similar merit in plan and design to the first five, the new houses are of very particular interest because of the new, experimental, economical construction with which they are built. Of the very essence of progressive architecture, they make imaginative use of today's resources in materials and structural method in order to provide new and better solutions to problems that are as old as the hills—in this case, suitable habitation for men and their families.

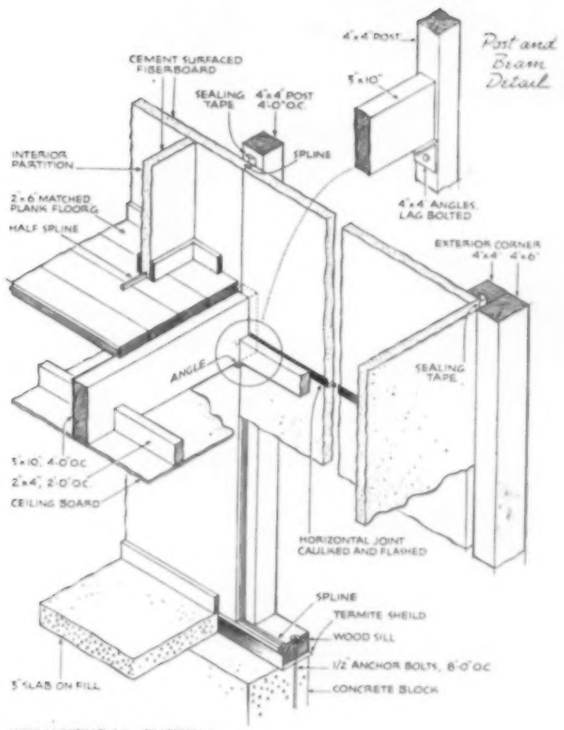
These houses were built at the very end of pre-war private residential construction. Because of the difficulty in finding builders to bid on the work, a special type of building contract was worked out whereby an estimated price was agreed upon, with the understanding that any savings would be divided equally between contractor and owner; and, in the event of any extra costs, these would be split three ways—between contractor, owner, and architect, the latter provision reflecting the architects' wish to experiment with the new structural system and their conviction that it would prove economical. This conviction was justified. When all bills were in, there were savings of from $100 to $500 on each of the houses, for which (as of the end of 1941), total building costs ranged between $7,000 and $9,000.

All three of the houses employ a freshly rationalized version of mill construction (see isometric), based on a 4-foot module, that combines some of the oldest

All photographs of the Snake Hill houses were made by Ezra Stoller.

1

ZERBE HOUSE ..... Page 54



STRUCTURAL SYSTEM

CARL KOCH, HUSON JACKSON,
and ROBERT KENNEDY, Architects

ARCHITECT JOSEPH P. RICHARDSON, Builder
(Grandson of H. H.)

BELMONT, MASS.

of materials with some of the newest. Framing (exposed on the exterior) is of 4 by 4 or 4 by 6 redwood posts. Joists are 3 by 10 members, 4 feet on centers. Flooring—in this case, a structural element—is of 2-inch T&G planking. The wall curtain is 1½-inch-thick cement-surfaced fiberboard which automatically forms both exterior and interior wall finish. Placement of this material within the vertical framing results in continuous wall surfaces inside the house, uninterrupted by protruding structural members. The roof is supported by 2 by 6 ceiling joists and rafters trussed together and placed 2 feet on centers. Interior partitioning—which is non-load-bearing and hence may be located at any place the architects desire—is either of wood or of the same cement-surfaced fiberboard as that used for the exterior envelope.

This structural system results in a distinctive exterior appearance, which is quite different from that of the largely wood construction of the original Snake Hill houses. However, the architects point out that the new houses are fairly separate from the original houses, and, at most times of the year, no wood house is visible from any of the new ones.

One of the theories the architects had in mind—one, incidentally, which the finished houses amply reinforce—is that this structural approach, employing standardized parts assembled on a modular basis, provides for the broadest choice in individual preference as to room layout, while the general similarity of exterior appearance tends to produce a restful, homogeneous neighborhood. It is interesting to note that this is almost the exact reverse of that approach to prefabrication wherein standardized plans are used, and variety is possible only by slight—and often fussy—changes in exterior detail. A latter-day expression of faith in the time-honored architectural maxim that the plan's the thing.

ENTRANCE FRONT, at the kitchen corner.

1 . . . ZERBE HOUSE

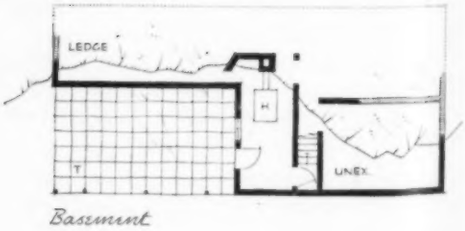
CARL KOCH, HUSON JACKSON, and ROBERT KENNEDY, Architects

JOSEPH RICHARDSON, Builder

Built on a steep slope, with the important view to the southeast, this home and studio for the artist Karl Zerbe, his wife, and young daughter is the largest of the new houses. At the entrance level, the house has the appearance of a ground-hugging cottage; from the lower terrace, there is a surprising loftiness and spaciousness.

Arranged on three main floor levels, the house respects the site entirely, the floors becoming progressively larger in area (from basement to upper floor) as the slope recedes. The studio, a story and a half in height, occurs at a floor level of its own. The family living area—living-dining room and kitchen—makes the most of the space available in a combined plan arrangement; in the angled corner, a glazed door opens the room out to the high living porch.

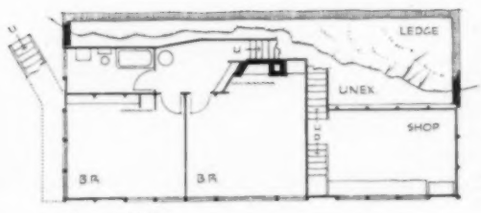
The large shaded LIVING TERRACE at the southern corner of the basement level.



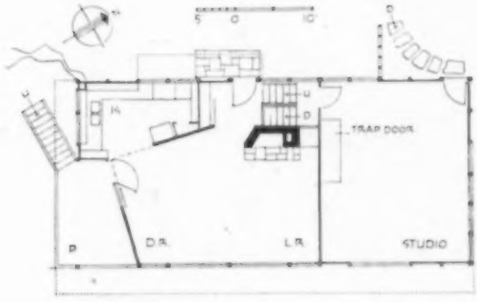
Basement

VIEW FRONT of the house . . . . . .

..The pattern of the structural elements and proportioning of window areas compose with the site into distinguished architecture.



Lower floor



Upper floor

THE STUDIO, a story and a half in height, is full windowed in the corner toward the north; tubular lamps at the window head repeat the light source at night

ZERBE HOUSE

Inside the house the plan advantages of the structural system are apparent. Since bearing partitions are unnecessary, there is the greatest flexibility in handling space division. The living-dining-kitchen space planned as an irregular-shaped unit appears much larger than its actual area; a variety of arrangements of furniture is offered, and the vast windows to the southeast take full advantage of a wonderful view. A totally separated studio was a major client need, and this was satisfied both by full partitioning and location at a lower level. The house is heated by a forced warm-air system.

In the LIVING ROOM, the fireplace breast shields the entrance hall from the lounging area.

Operable panels in the two end windows take care of ventilation.

e DINING AREA opens directly to the chen; the door leads out to the living porch.

The well appointed KITCHEN is equipped with open shelving installed on adjustable brackets.

ZERBE HOUSE

The bedrooms in the Zerbe house come at the middle level, both of them with large windows on the view side. The partition on the north wall of the child's bedroom is of cedar boards arranged vertically in clapboard fashion. Throughout the house, partitioning is kept as uncomplicated as possible; even closets are left without doors and the carpentry these would involve. In short, the highly important design reference point of economy applies all the way from structural concept to plan detail.

CHILD'S ROOM. Clapboard partition at left.

OWNER'S ROOM. The door is a 1⅜-in. hollow casein-glued core, flush faced with gumwood.

At a corner of the owner's room, a full-length mirror adjoins the view window.

Approach side of house. Don't overlook the view through the corner porch.

2 . . . LORD HOUSE

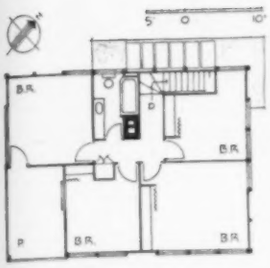
CARL KOCH, HUSON JACKSON, and ROBERT KENNEDY, Architects
JOSEPH RICHARDSON, Builder

The only one of the three houses built on a level site, the Lord house in shape is basically nothing more than a simple, rectangular box. Yet in amenity and plan scheme—largely because of the flexibility allowed by the structural system—this house is a far cry from the conventional layout of a conventionally built home. And it indicates again one way in which the human desire for individuality can be satisfied through methodical standardization. The architects are careful to point out, however, that the structural concept, while a step in the right direction, is not yet perfected. The nature of the curtain-wall material in its present stage of development is such that it is subject to shrinkage and swelling, and its edges are not weather-resistant. In spite of these deficiencies—and they were known before the houses were designed—no serious flaws in performance have occurred. Obviously, however, if an inert, weatherproof wall material of this sort could be manufactured, the system would be that much better.

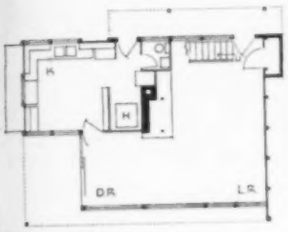
GARDEN FRONT of the house. Curtaining controls the amount of light.

Close-up of the glass wall of the living room.

The **LORD** house (foreground) is closely allied to the **KRIEBEL** house (background) (see page 63).



Second floor



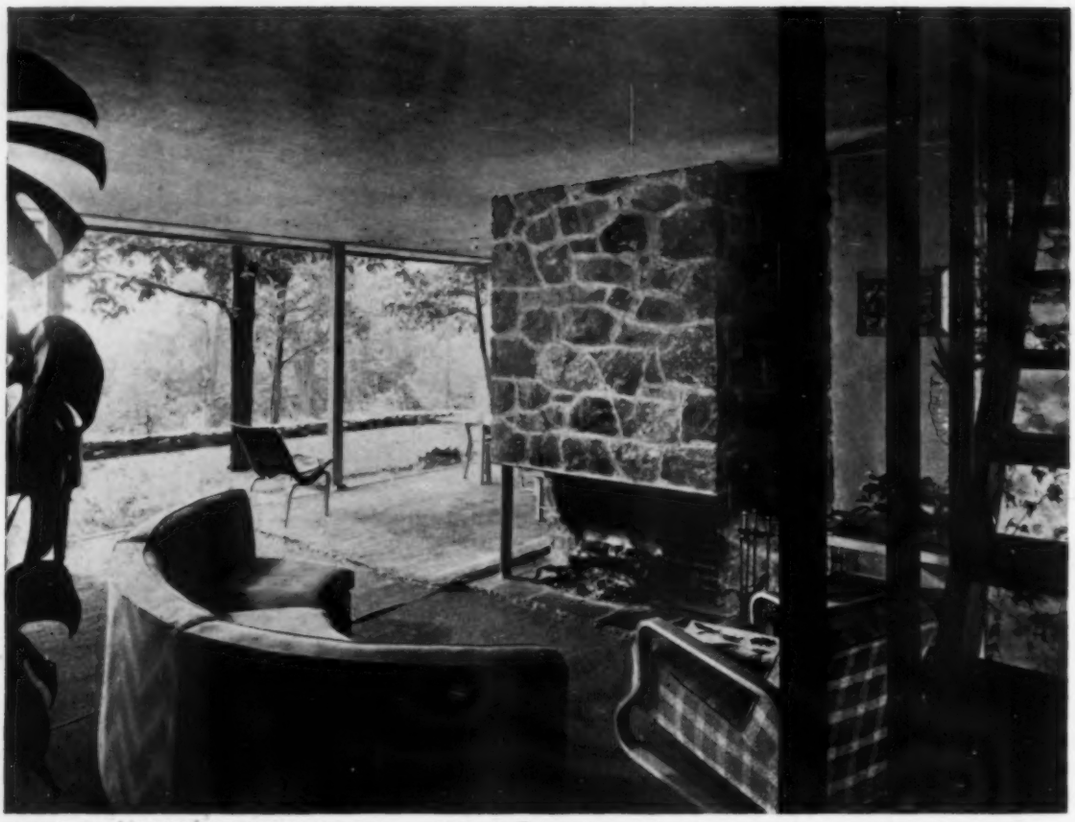
First floor

Home in the country. Large rugs cover the concrete floor.

LORD HOUSE

Like the other houses, the Lord house is planned around the extraordinary view that the site affords, in addition to providing living quarters for the family—in this case, a man and his wife and two children. The basementless house is heated by a combination system — radiant coils in the downstairs floor and hot-water radiators upstairs, served by a ground-floor heater. The glazed corner of the dining-living space provides a remarkable sense of unity with the outdoors; a sliding, glazed panel opens up half of the wall of the dining space to the corner porch.

From the window wall, past the fireplace corner to the open stairway built across the front window.



General view of LIVING SPACE; the stairway (right foreground) is rationalized down to just about the simplest possible scheme.

LORD HOUSE

The design of the fireplace in relation to the window wall is one of the few instances we have seen where both may be viewed and enjoyed at once. The Lords wanted a separate kitchen, and the one provided is exceptionally bright and large enough to accommodate a secondary dining table.

BATHROOM. The linoleum-surfaced counter provides desirable space that is usually lacking.

KITCHEN

3 . . . KRIEBEL HOUSE

CARL KOCH, HUSON JACKSON, and ROBERT KENNEDY, Architects
JOSEPH RICHARDSON, Builder

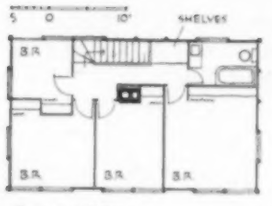
Like the Zerbe house, the Kriebel home is built on three levels on a sloping site. The Kriebels have three children, and woodworking, carpentry, and pottery are hobbies in which the family indulges. To serve the latter, the basement floor includes a workroom equipped with a sink. For a house that measures but 20 by 32 feet in area, it is rather surprising to find four bedrooms within. Since this house—like the others—was built on the basis of utmost economy, some of the interior spaces are admittedly a bit cramped. But future plans call for an addition of a bedroom suite and a larger hobby room. The rather bare appearance of certain views of the house is also explained by the fact that it is in only its first stage of development.

KITCHEN DOOR

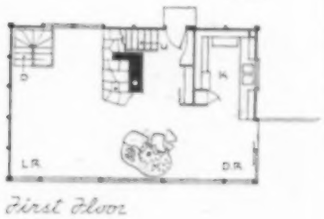
VIEW SIDE of house showing the hilly site.

The louvered screen at the right of the dining-room door joins this house to the Lords' house next door.

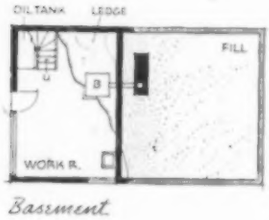
DINING-LIVING AREA. This house brings the outdoors in quite literally.



Second floor



First floor



Basement

KRIEBEL HOUSE

The architects took advantage of a natural outcropping of rock, let it come right through the floor of the living-dining space, and serve—with ferns and other plant material added—as a dividing element between the two main functions of the room. To make space on this floor seem as large as possible, an extraordinarily open plan is used; no wall occurs between kitchen and dining corner; the living and dining area are a continuous space, and no separate entrance hall exists. As in the Lord house, the Kriebel home has a split heating system—a radiant panel system for the first floor and hot-water radiators at the bedroom level.

From left to right: fireplace wall, entry alcove, closet, kitchen alcove, dining corner, and natural rock outcropping.

KRIEBEL HOUSE

These interior views illustrate perhaps more than any of the others the freedom in planning that is possible where partitions are non-load-bearing. Spaces are divided only where desirable or necessary to separate functions; otherwise (on the first floor) the total house area is planned as a single general living space.

One of the four bedrooms.

The fireplace corner. The fireside seats command the view through the window wall opposite.

Photos by Joe Munroe

THE LIVING ROOM WING straddles a little valley.

HOUSE AT BLOOMFIELD HILLS, MICHIGAN

FRANK LLOYD WRIGHT, Architect

An important criterion for judging a house is the satisfaction of the family for which it was designed. In this case the owner reports: "All of us would love to do it again. We would have Frank Lloyd Wright again, too—if he would have us." High praise, indeed.

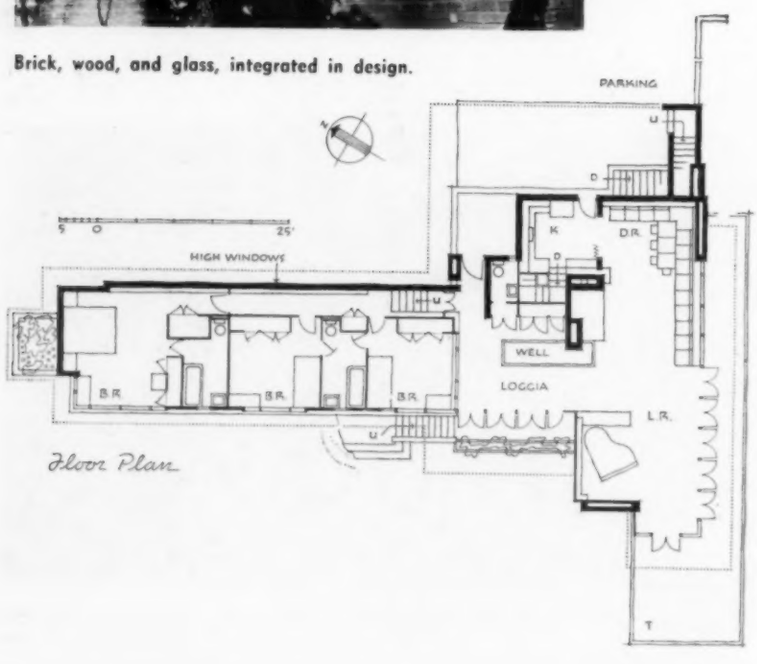
When Gregor Affleck and his wife went to Mr. Wright to design their home, they told him: "We have seen the other houses and we don't like them and we like yours. . . We don't like attics; we don't like basements, and we don't like furniture." Their needs were simply stated—"a house with a lot of windows, a large fireplace, a carport instead of a garage, room enough for three people to live in but large enough for six to sleep in." On their architect's advice, they bought a very uneven piece of land—"something with a little character in it, something nobody else could do anything with." Mr. Wright carried on from there. On succeeding pages, we assay the result.

FRONT ENTRANCE, skylighted.

Enclosed by the wall at the corner of the carport, outside stairs lead up to a roof deck

REAR OF HOUSE, bedroom wing at left. The steps lead up to the loggia balcony.

Brick, wood, and glass, integrated in design.



Floor Plan

HOUSE AT BLOOMFIELD HILLS, MICHIGAN

FRANK LLOYD WRIGHT, Architect

The plan scheme screens the house from the approach side, windows on this front being restricted to transom-type sash at ceiling height. Entrance to the house from the front door is an ever-expanding progression of openness and light. The narrow entry leads into the loggia where windowed doors to a balcony are supplemented by skylights and a "floor lantern," glazed at the bottom, which admits light, provides a view of the garden beneath, and—when opened in summer—becomes what Mrs. Affleck terms "an organic air-conditioning unit." A turn to the left opens into the great, irregular-shaped general living space, windowed from floor to ceiling at the southern corner toward the living balcony and the down-sloping woodland. To an exceptional degree—though not for Mr. Wright—the house and its site are part of each other, and it is difficult to draw clear distinctions between the elements of plan, materials, structure, and finished design.

The solid wall of the cantilevered balcony gives form and privacy to this raised, outdoor room.

From the loggia, past the "floor lantern" to the general living room.

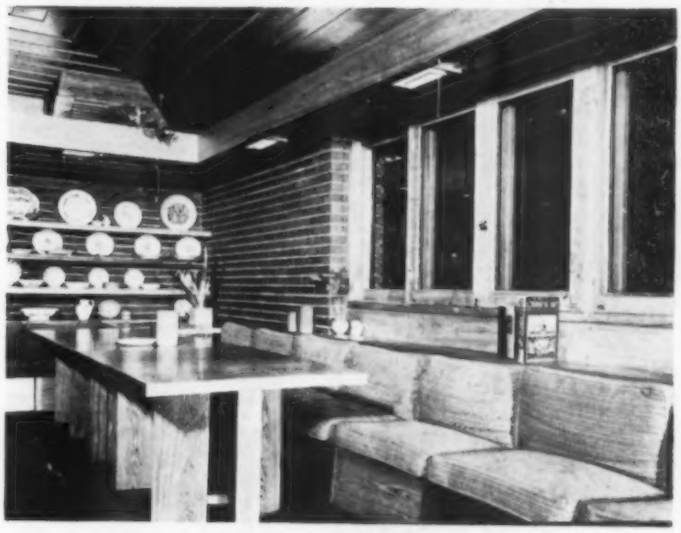
DURING CONSTRUCTION, VISITORS CAME IN SWARMS. SAMPLE REMARKS:

"I hear that the man who is building this house is an architect and he is crazy."

Visitor: "Did you ever think what would happen if you tried to sell this house?"
Mr. Affleck: "Sure, I think I could sell it. Did you ever think how foolish it is to build a house you don't like so that you can sell it to somebody who will not like it either?"

"Wouldn't you think that fellow could find some level ground to build a house on?"

Visitor: "We are going to design our own home. We know what kind of a house we like."
Mr. Affleck: "Why don't you write your own music? You know what kind of music you like."



The dining corner.

Loggia windows, doors, and skylights.

The marshaling of vertical door-frame lines complements the insistent verticality of the woods seen through them.

Master bedroom. The board applied to the wall to receive wiring and light switch is frank. But is it integrated design?

MRS. AFFLECK SAYS:

"I wish we could take a vacation—if we could take our house with us."

"I know the roof has leaked and that the skylights leak, but I would rather live in this house than any other house in the world."

The in-sloping wall of the corridor is made up of offsets of overlapping, 12-inch cypress boards.

HOUSE AT BLOOMFIELD HILLS, MICHIGAN

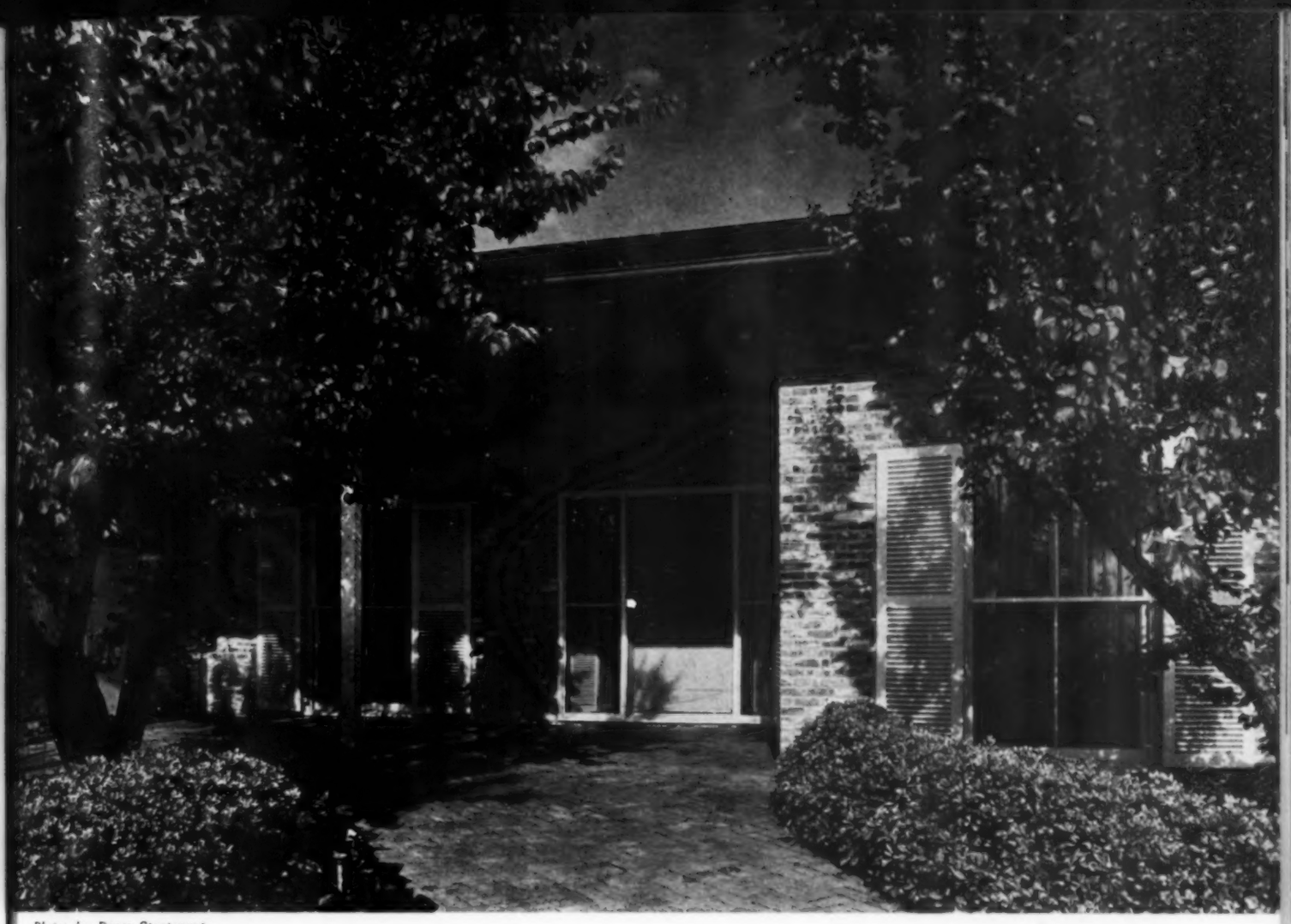
FRANK LLOYD WRIGHT, Architect

Exterior walls of wood are built of double layers of one-inch-thick overlapping boards screwed together, with continuous insulation between the layers. While ingenious (the structure itself forming both interior and exterior finish), this sloping-wall construction seems rather prodigal in the use of the material and something of an anachronism, in that it creates hard-to-justify shearing and overturning stresses at every joint and (where it serves as a non-bearing wall) its solidity seems excessive.

The three bedrooms, located in an upper wing of their own, are separated by bathrooms.

MR. AFFLECK'S CONCLUSION:

"There are only two things wrong with a Frank Lloyd Wright house. People will hardly let you get it built and will hardly let you live in it when it is done."



Photos by Roger Sturtevant

HOUSE AT MODESTO, CALIFORNIA

WURSTER, BERNARDI & EMMONS, Architects

A distinctive house planned for a hot, dry climate

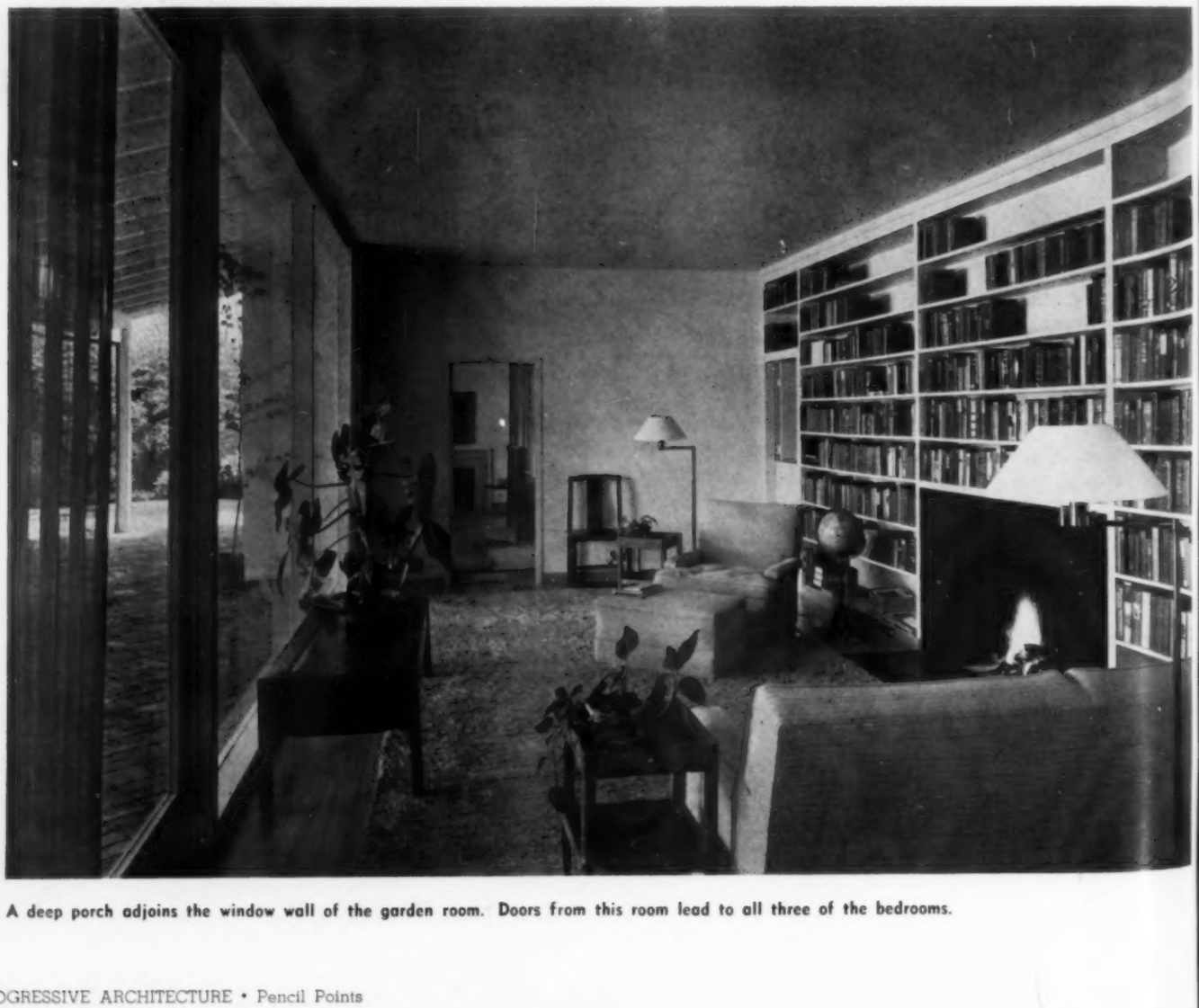
Protection from the sun is essential to comfort in the interior-valley country where Modesto is located. This, perhaps more than any other single factor, has determined the form and detail of this California home. Rooms are high and airy; the tall, double-hung windows, equipped with operable shutters, are a flexible means for controlling light and ventilation; the deep porch ceilings are sunshades as well as part of the roof construction; brick walls help retard the penetration of heat; even the pitched roof is an insulation device.

The porch and paved terrace at the corner where the garden room meets the living room.

HOUSE AT MODESTO, CALIFORNIA

On these two pages are further illustrations of the design result of skillful planning for sun control. Toward the garden, large glass areas were wanted in the dining room, garden room, and owner's bedroom. In every case, these are bordered by exceptionally deep porches that eliminate glare and direct sunlight.

The garden room is a noteworthy plan development of what customarily is treated as a glazed passage. Here, this connecting link between main house and bedrooms becomes an informal, apart, family living room.

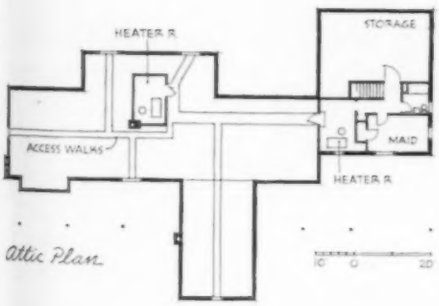


A deep porch adjoins the window wall of the garden room. Doors from this room lead to all three of the bedrooms.

WURSTER, BERNARDI &
EMMONS, Architects

This huge, shaded living porch opening off the main living room, dining room, and kitchen wing is designed to lure whatever breezes come along.

The dining room commands a full view across the porch to the lawn and garden.



THE PLAN

Separate rooms were preferred to the open-plan approach. The formal living room has three garden exposures. An unusual feature of this basementless house is placement of storage space and heater rooms (gas-fired; warm air) in an attic. This attic, insulated at the ceiling line, is part of the planning for comfort control.

The formal living room is finished in vertical-grained fir paneling, stained light to retain its natural color.

HOUSE AT MODESTO, CALIFORNIA

WURSTER, BERNARDI & EMMONS, Architects

All windows exposed to direct sunlight are large, double-hung sash. This type was used because, in the architects' judgment, it is the most practical window yet devised that will allow use of exterior shutters and interior sliding screens while causing no disarrangement of curtains or deprivation of privacy when open.

The view to the dressing room illustrates the flexibility of window-light control.

OUTDOORS

The house is set in an old apricot orchard. This natural setting has been enhanced by distinguished formal landscaping, the work of Thomas D. Church, landscape architect.

FRED BASSETTI, Designer

AIRPORT HOTELS

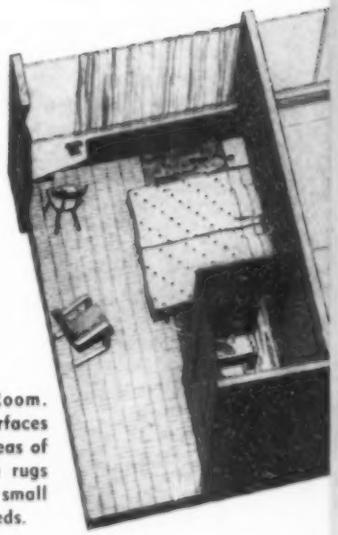
These schemes constitute but a preliminary study to help define requirements and a logical design approach. While the result is clean, contemporary architecture, possibly their greater significance lies in the progressive attitude of the designer and the sponsor and promoter—George Cary, Jr.—who, seeing a new human need, offer a cogent argument in favor of a planned program to serve it.

Air travel is vulnerable to the whims of the elements. When conditions require "All Flights Canceled," both planes and travelers come to a halt. Planes may return to their hangars; travelers, in most cases, are left to fend for themselves. Sleeping facilities at small airport hotels is the answer proposed here.

In many respects, the design problem is similar to that of any hotel. But special factors enter in. To handle the problem of protection against noise, for instance, the designer proposes fixed, double glazing and complete air conditioning. Grounded passengers are not likely to make long stays; hence, emphasis is on easy-to-maintain efficiency rather than on luxury or residential amenity. Bathroom units are a specially designed prefabricated type, the designer seeing the potential of the program becoming a nationwide series of hotels and recognizing the appeal of reliable, standardized accommodations.

What about use of the hotels in good weather? The lounges, dining rooms, cocktail bars, and other usual hotel services are the designer's answer. The idea is that business people would use these hotels as a base between plane arrival and departure. Another possibility is use by flying clubs and private flyers for whom facilities at present are all but non-existent.

Three sizes of hotels are proposed. Each anticipates the likelihood of future expansion of sleeping quarters, either laterally, in new wings, or by the building of additional floors.

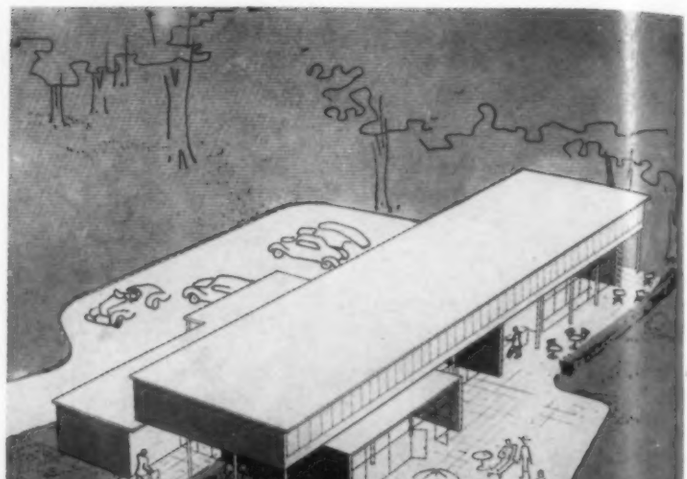


Typical Guest Room. Hard matting surfaces the main traffic areas of the floor; soft-pile rugs are restricted to small strips alongside beds.

Proposed Prefabricated Bathroom Unit.

AIRPORT HOTELS

FRED BASSETTI, Designer

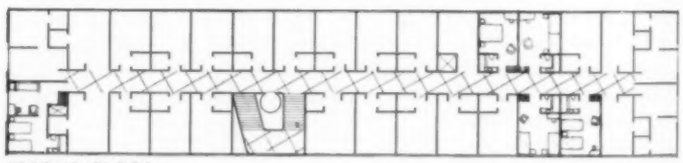


FOREWORD

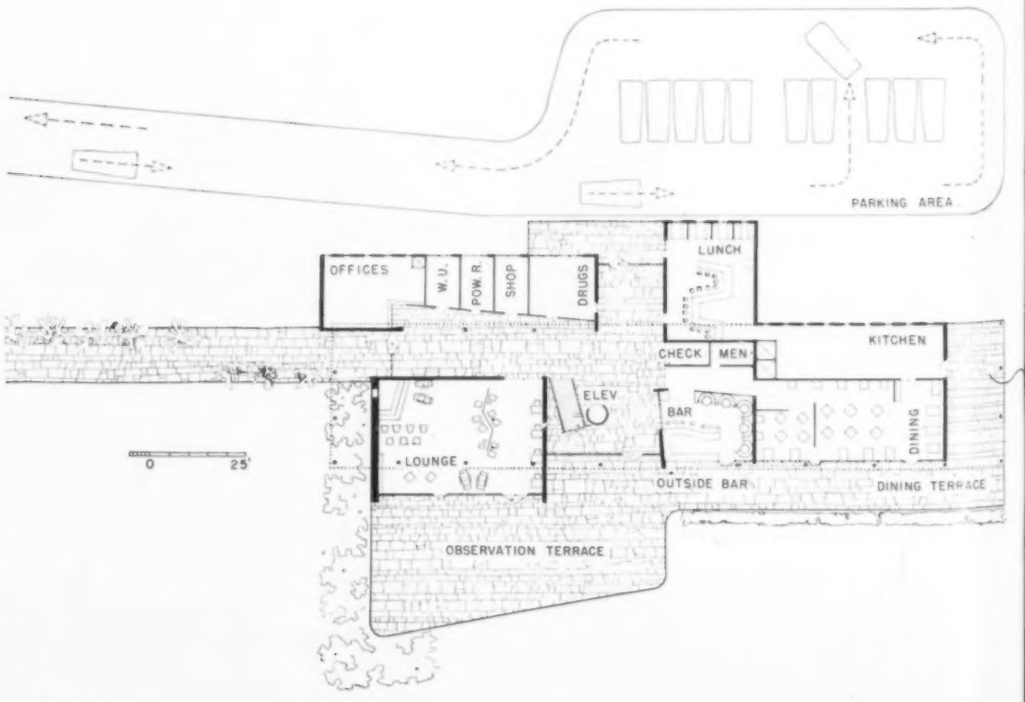
Since the designs are schematic and unrelated to specific sites, exact relation to existing airport buildings is not indicated. The plan is to place them as near as possible to main terminal buildings—connected by covered walks, where feasible.

SMALL

Main public rooms offer box seats for viewing port activities; circulation serves car parking and airport terminal buildings equally. Kitchen and dining-room spaces, rather lavish in relation to number of guest rooms in initial schemes, take into account the probability of additional guest rooms at a later date. Meantime, airport visitors would undoubtedly make use of these generous services. A basement provides space for baggage checking and service and storage rooms.

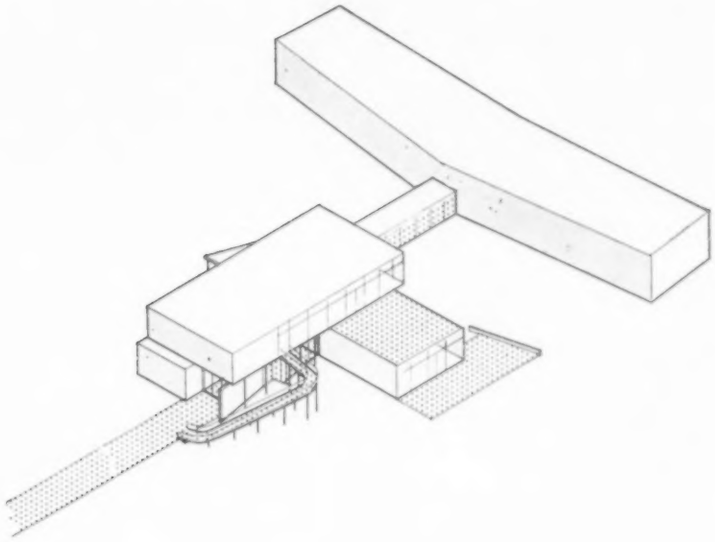


SECOND FLOOR

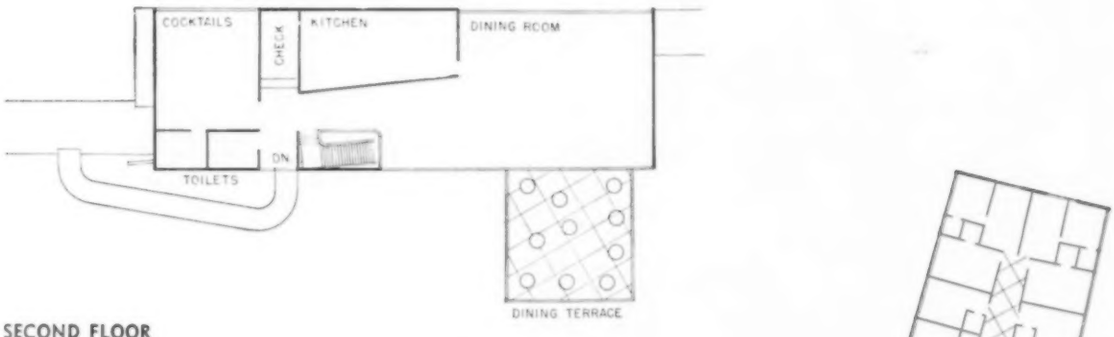


GROUND FLOOR

MEDIUM



An inventive plan that raises the dining room and kitchen to the upper floor, with an outdoor dining terrace on the field side, this scheme, like that of the small hotel, anticipates arrival of guests from both the port and the highway. Standard guest rooms and baths are schemed in a wing-shaped projection, connected to the central building by a glazed gallery. As with all of these plans, double glazing and air conditioning are planned to isolate visitors as much as possible from airport noise. One questions the location of kitchen deliveries and storage; but since the design is schematic, this may be captious criticism. A basement with dumbwaiter service would be a possible solution.



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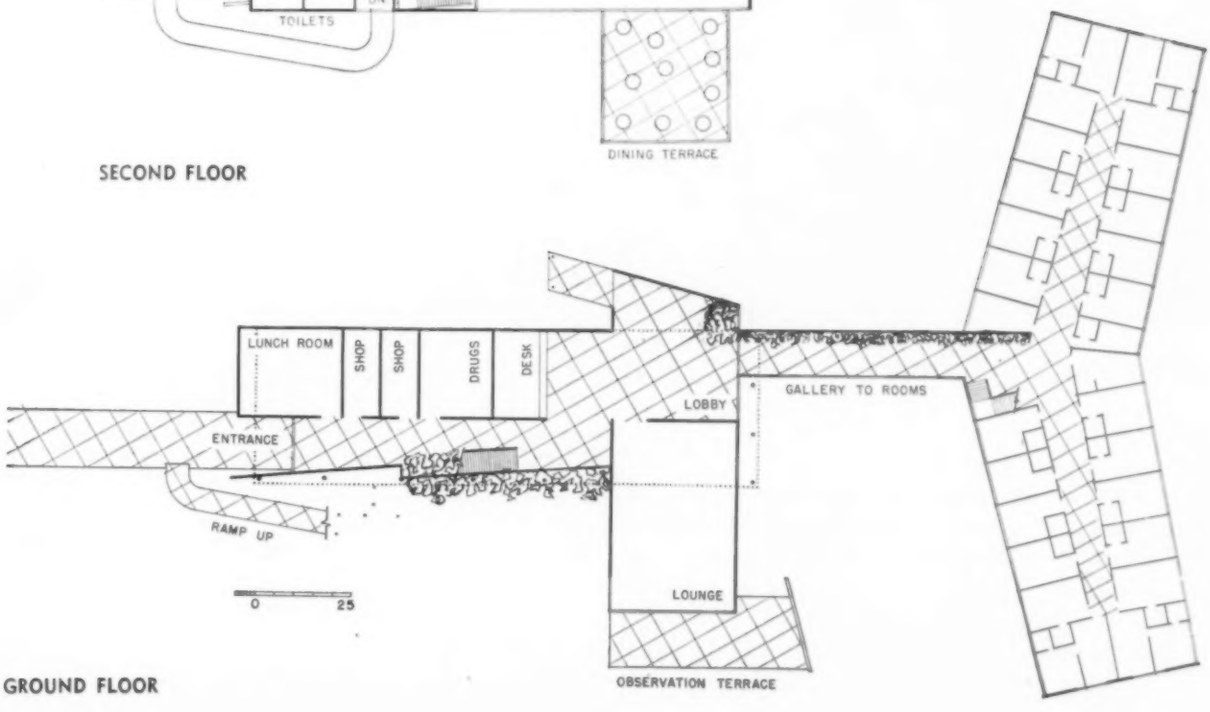
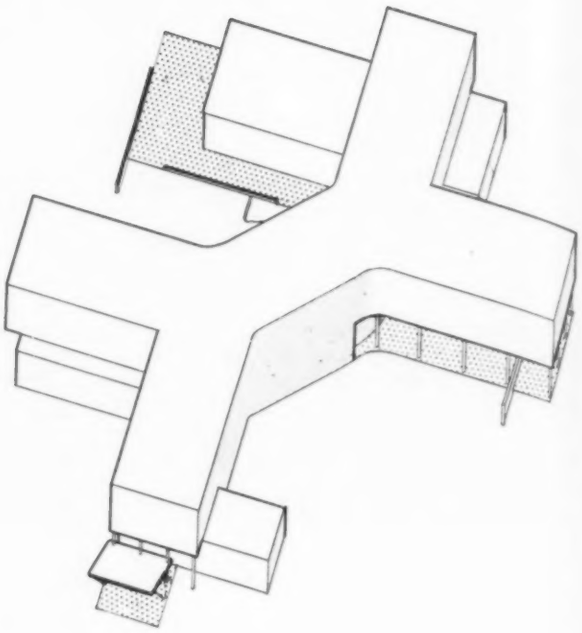


GROUND FLOOR

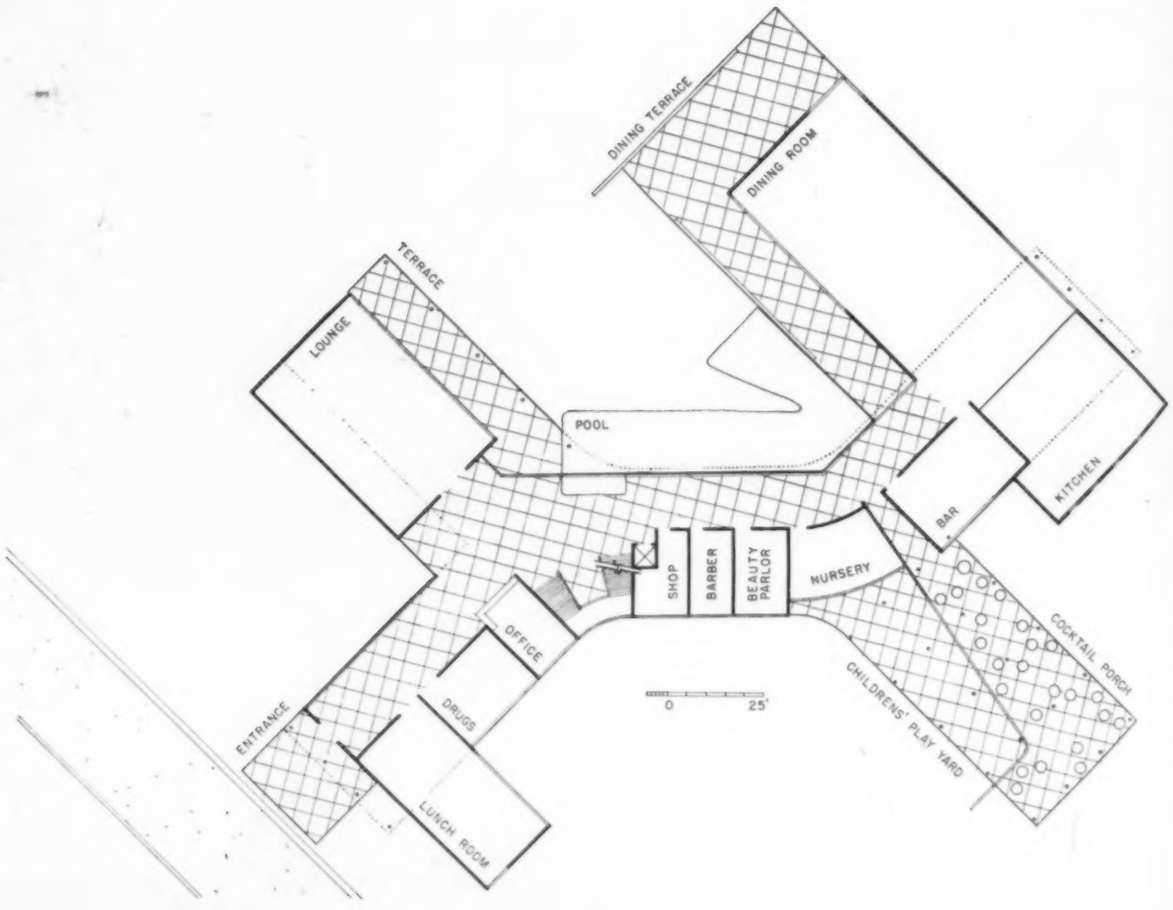
AIRPORT HOTELS

FRED BASSETTI, Designer



LARGE

A considerably more elaborate scheme than that suggested for the smaller hotels, this plan is based on the same principles. Public rooms are faced toward the field; shops, kitchen, bar, and service areas are kept to the road side of the building. While these designs are all concerned particularly with airport locations, they contain numerous fresh ideas for designers of any hotels where viewing is an important factor. In this case, the projection of the lounge and dining-room wings encloses a landscaped courtyard.



Details on following page

Gottscho-Schleisner

WHOLESALE GLOVE DISPLAY BOOTH

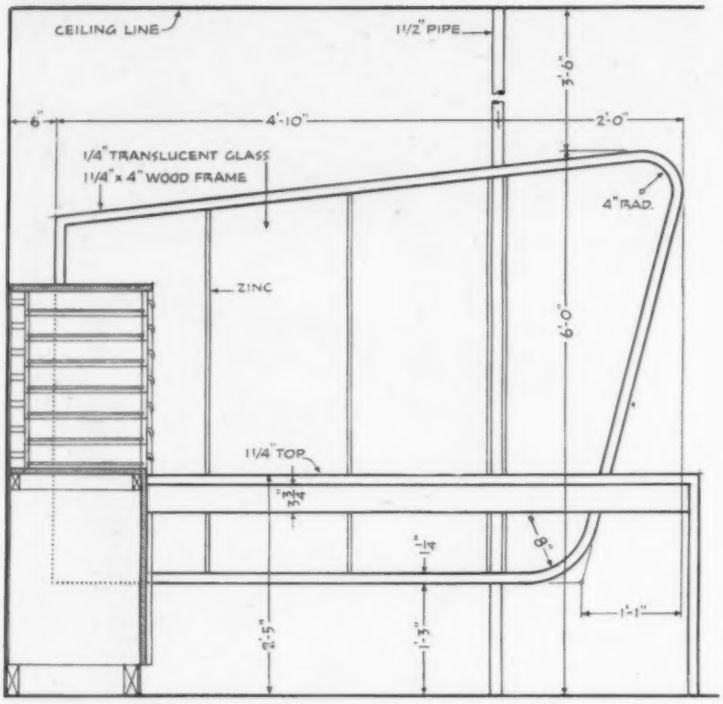
FOWNES BROS. & CO., NEW YORK CITY

KETCHUM, GINA & SHARP

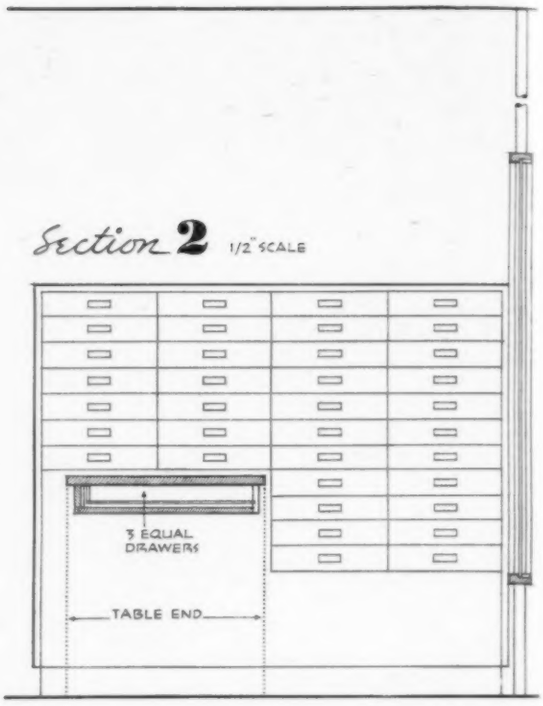
Architects

In both this and the telephone booth which follows, the desire of this firm to experiment with straightforward, unconventional uses of materials is successful. Situated along an interior wall, display booths require light and ventilation; screens are more logical than complete partitions. Telephone booth (pp. 81, 82) was designed as drawn; the owner had the telephone mounted as photographed, nullifying an important detail. Acoustically the booth is entirely satisfactory despite its openness.

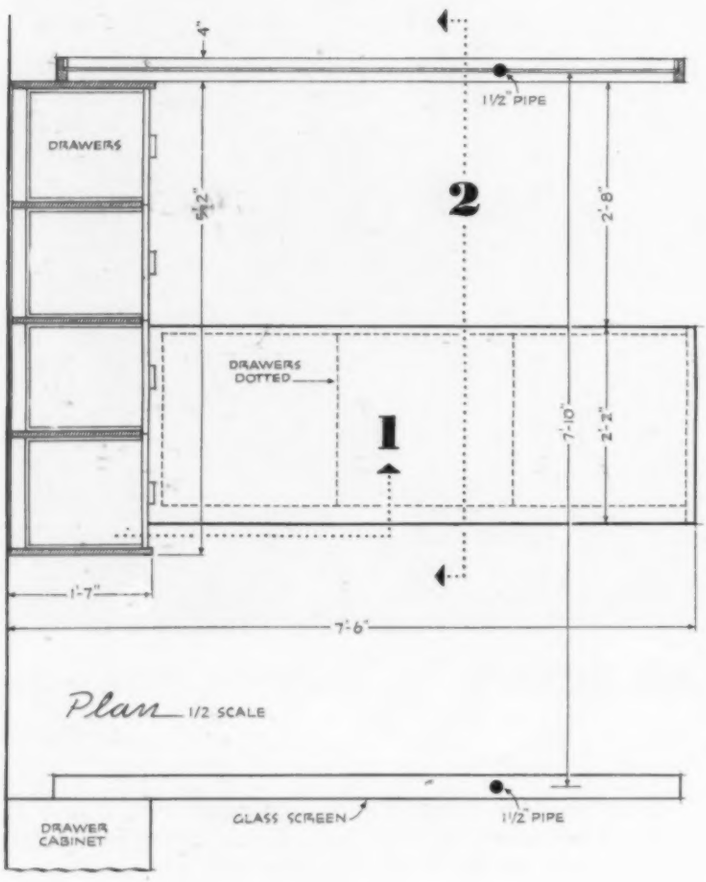
Photo on preceding page



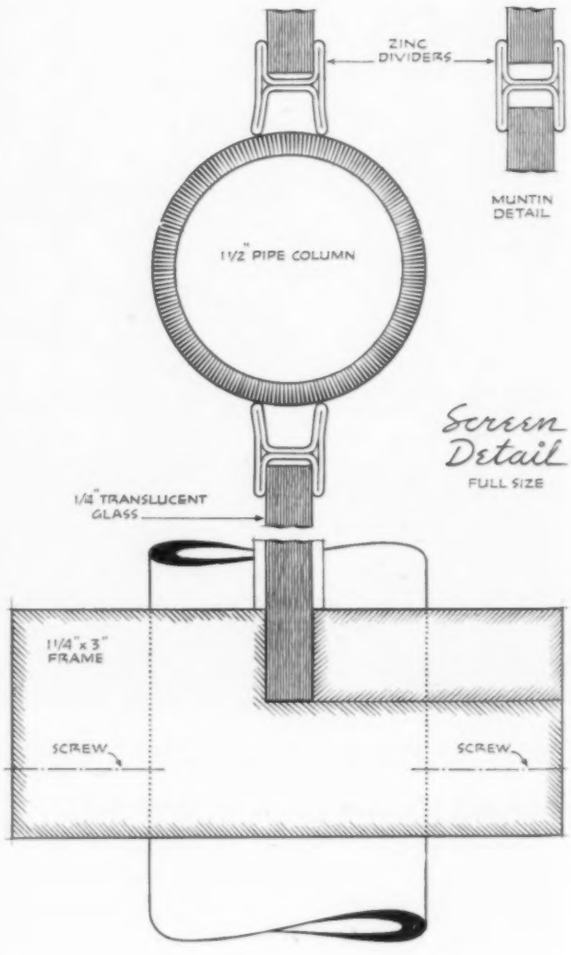
Section 1 1/2" SCALE



Section 2 1/2" SCALE



Plan 1/2 SCALE



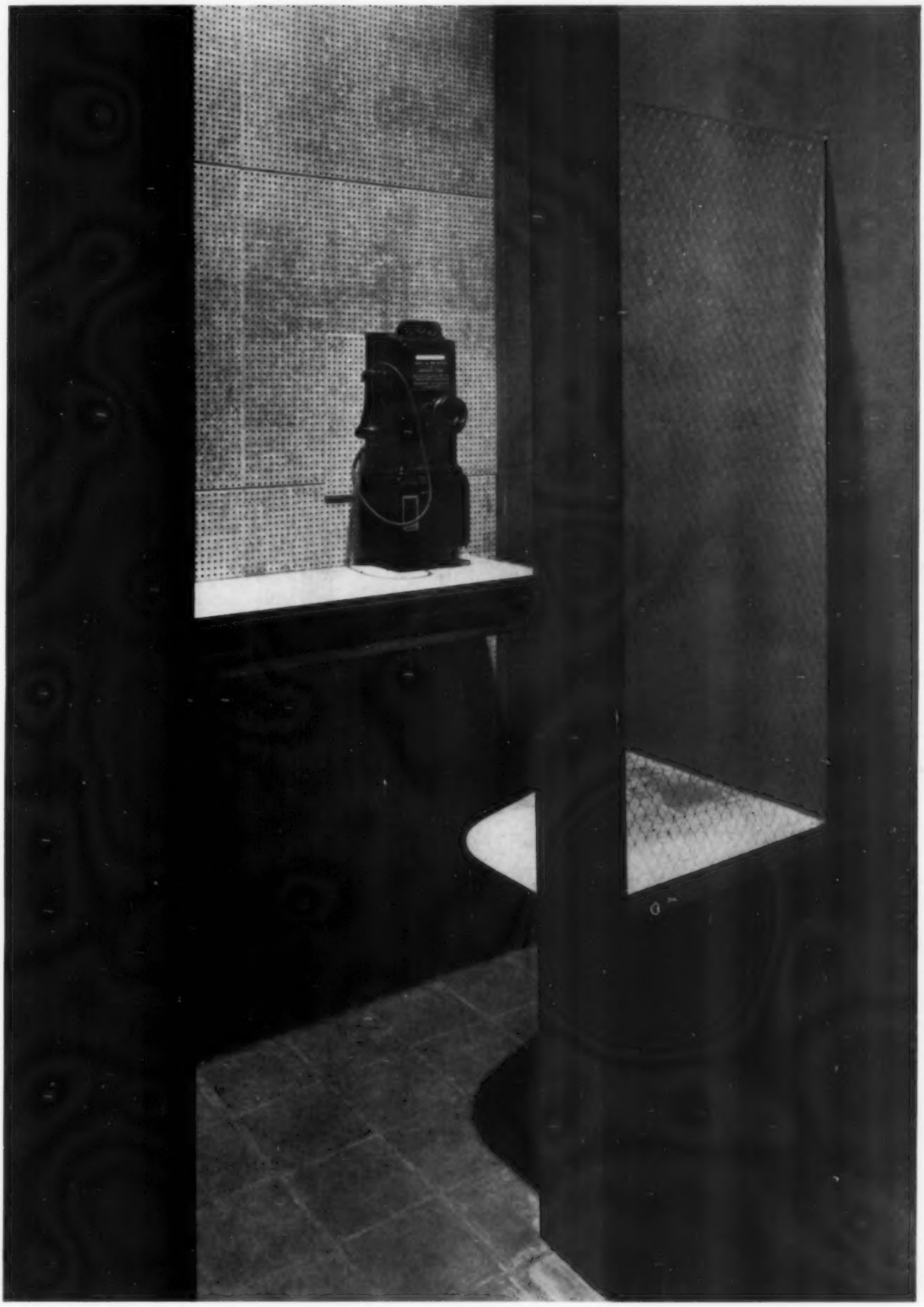
Screen Detail FULL SIZE

WHOLESALE GLOVE DISPLAY BOOTH

FOWNES BROS. & CO., NEW YORK CITY

KETCHUM, GINÁ & SHARP
Architects

Details on following page



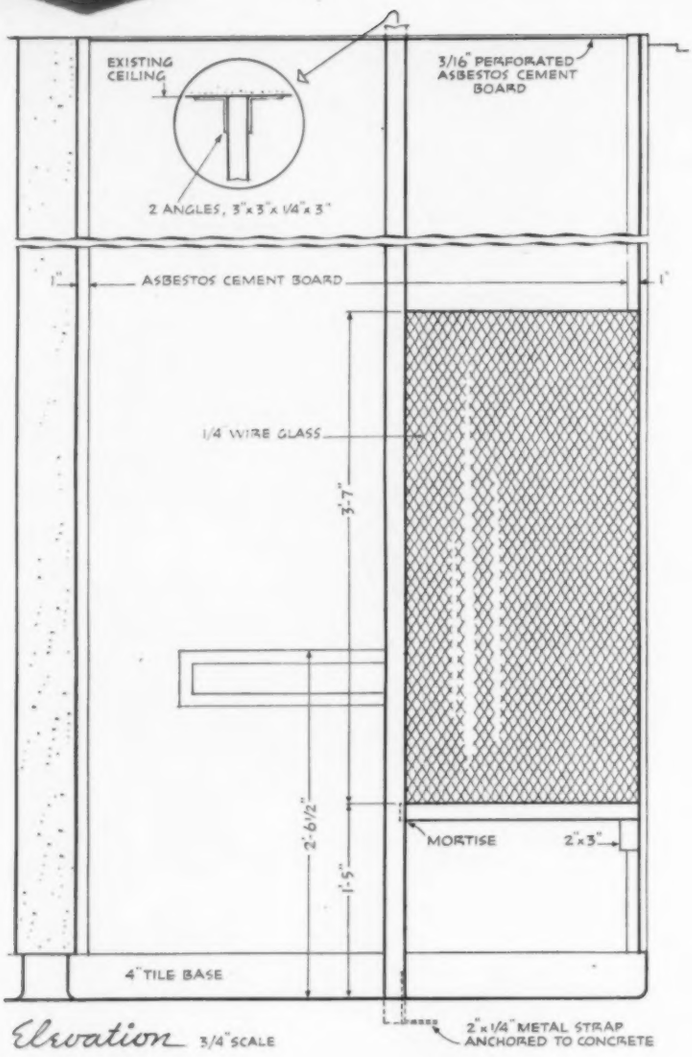
Gottscho-Schleisner

TELEPHONE BOOTH

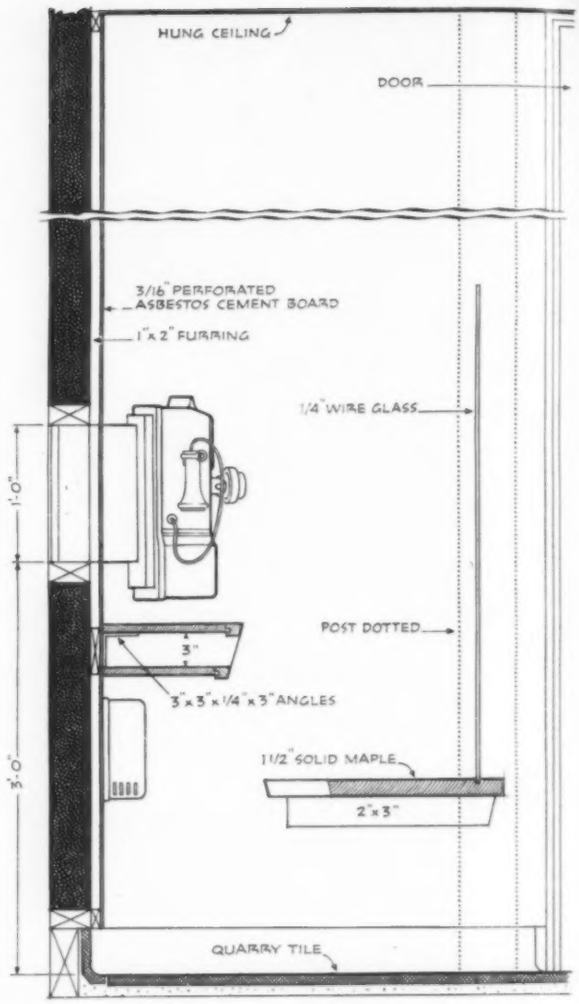
KIDDE MFG. CO., BLOOMFIELD, N. J.

KETCHUM, GINÁ & SHARP
Architects

Photo on preceding page

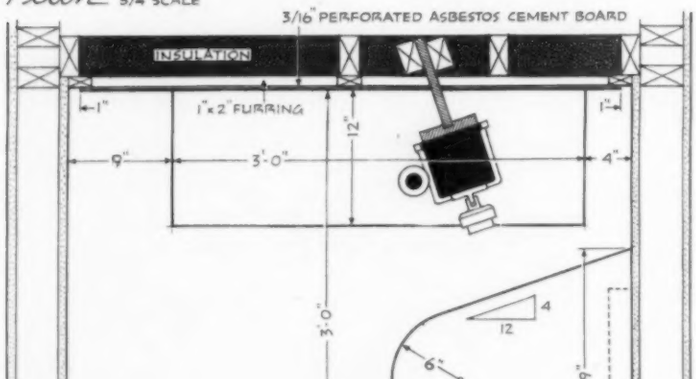


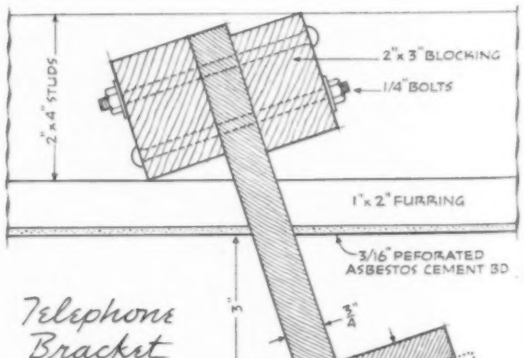
Elevation 3/4"SCALE



Section 3/4"SCALE

Plan 3/4"SCALE





Telephone Bracket 3"SCALE

TELEPHONE BOOTH

KIDDE MFG. CO., BLOOMFIELD, N. J.

KETCHUM, GINÁ & SHARP
Architects

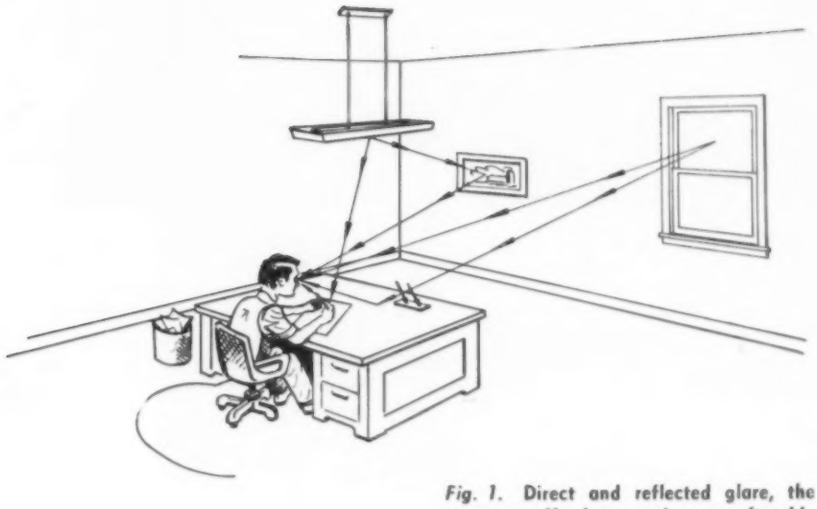


Fig. 1. Direct and reflected glare, the greatest offenders against comfortable seeing, occur all too often and are not well recognized. Glare can be prevented if lighting, interior decoration, and furniture arrangement are planned in relation to one another.

LIGHTING . . . . . .

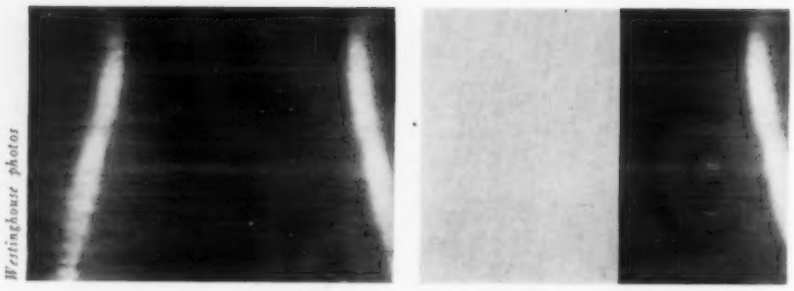
PLANNED TO FUNCTION PROPERLY

by **WM. H. KAHLER**, Lighting Engineer, Lighting Division
Westinghouse Electric Corporation, Cleveland, Ohio

All good architecture must perform certain functions, which are the basis of design and planning. "Functional" does not necessarily mean purely utilitarian, but includes the combination of usefulness, "eye appeal," comfort, and economic stability. Progressive architects and engineers are now trying to visualize a finished building as a place of comfort, livability, and maximum over-all efficiency. In it, lighting plans are important; if, as is frequently true, they are executed by the "rubber stamp" method, they will nine times out of ten fail to satisfy the human requirements of vision and psychological acceptance.

Thus the real problem is more than just the selection and installation of lighting "fixtures." It is a problem of true illuminating engineering, which involves planning the entire visual environment, including interior decoration, furnishings, fenestration, and lighting equipment.

To accomplish this end, the architect must relate the interior to the specific activities of the user. Illumination requirements for different applications vary from pure utility to decoration and atmosphere. Usually there is a combination of functions; and it is the purpose of this article to analyze briefly the functions of illumination for types of interiors that will be occupying a large portion of our architectural talent in the next few years. The procedure of analysis followed should also serve as a guide in solving the many variations of lighting problems that arise.



Westinghouse photos

Fig. 2. **Reflected glare from desk tops can often be eliminated by choice of proper materials. Left, as the eye "sees" a desk having a dark, glossy wood top, the two streaks of light are images of overhead luminaires; the result is annoying reflected glare. Right, when a piece of diffusing light linoleum is placed on the dark, polished top, reflected glare disappears.**

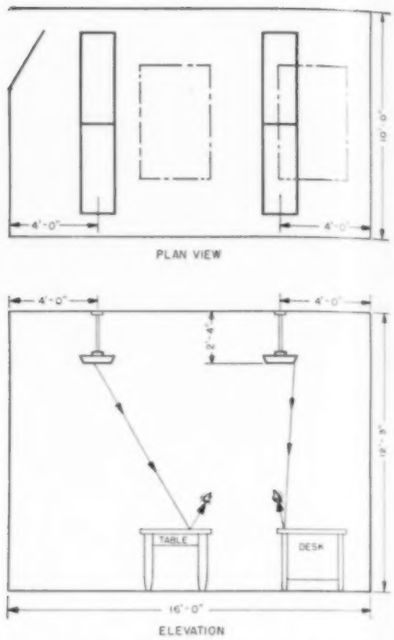


Fig. 3. **Conventional lighting layout for this small office provides 38 foot-candles (average) in-service illumination. Work at either table or desk subjects eyes to reflected glare.**

OFFICES

Seeing comfort and good visibility are the main functions of office lighting. The lighting requirements may be summarized as:

1. To provide enough light.
Most office work involves reading fine print, poor carbon copies, pencil notes, and other severe visual tasks which are carried on for long periods of time. At least 50 foot-candles should be provided, and higher levels are desirable. For the more ordinary seeing tasks such as are found in filing, conference rooms, and general correspondence, a minimum of 25 foot-candles is recommended.
2. Harsh shadows must be prevented.
3. Direct and reflected glare must be avoided.
4. Equipment must be easy to clean and re-lamp.
5. Appearance should be neat and in keeping with architectural character of rooms.

The subject of glare deserves careful study. While the detrimental effects of glare are easily understood, actual elimination of all phases of glare has been very difficult. Detrimental glare in an office may be present in any or all of many forms.

Direct glare will result from high-brightness luminaires located within the normal field of vision. It is of first importance, therefore, to select a type of luminaire with acceptable brightness characteristics in the direct glare zone (from the horizontal to 45 degrees below horizontal).

Window glare (**Fig. 1**), another form of direct glare, can be unbearable if not properly controlled by some form of shading. To take full advantage of natural lighting, the position of the worker has to be properly oriented in relation to the window. The best arrangement for comfortable seeing is obtained when the worker faces away from the window at an angle such that daylight reaches the working surface from over his left shoulder (or his right shoulder if left-handed).

Reflected glare (**Fig. 1**) invariably exists in very detrimental forms that all too often are accepted as inevitable. The problem is more easily understood if the fundamental law of reflection is remembered. This law—the angle of reflection equals the angle of incidence—is the basis for solving all reflected glare problems. Glass or polished desk tops, glass partitions, or glass-covered pictures are common causes of reflected glare.

Glass desk tops should not be used as they invariably cause detrimental reflected glare, in a manner often more serious than direct glare afforded by a luminaire. Also, dark desk tops create a condition of discomfort because the brightness-contrast between bright papers and the dark tops is high. It is recommended that desk tops have a simple pattern, a dull finish, and a light color with 20-30% reflection factor (**Fig. 2**).

Reflected and transmitted glare from glass partitions can be very disturbing, for it is often caused by the reflection or refraction of direct sunlight. Painted walls, therefore, are preferable to glass partitions. To eliminate reflected glare from existing glass partitions, the glass can be replaced with wall-board or painted with a light-colored, non-glossy wall paint. If glare occurs at a localized position on the glass, this spot may be covered with a chart, map, or some non-glossy decorative material.

Reflected sun and sky glare from glass-covered pictures is likewise very serious but can be corrected easily by tilting the picture properly or by changing its location.

The above factors are not directly related to lighting units, but they do contribute to the comfort or discomfort of the seeing environment. The interior decorator, architect, and lighting engineer should coordinate their efforts to accomplish the best results.

Figures 3 and **4** illustrate several principles involved in planning private-office lighting for maximum seeing comfort.

SCHOOLS

Illumination for the school classroom must provide adequate visibility on desks, writing boards, and charts. The artificial lighting system is generally used with natural lighting, but must be designed to be adequate for night service as well (**Figs. 5** and **6**). The long-range function of classroom lighting is to assist in the conservation of the child's eyesight and to make studies easier and more cheerful.

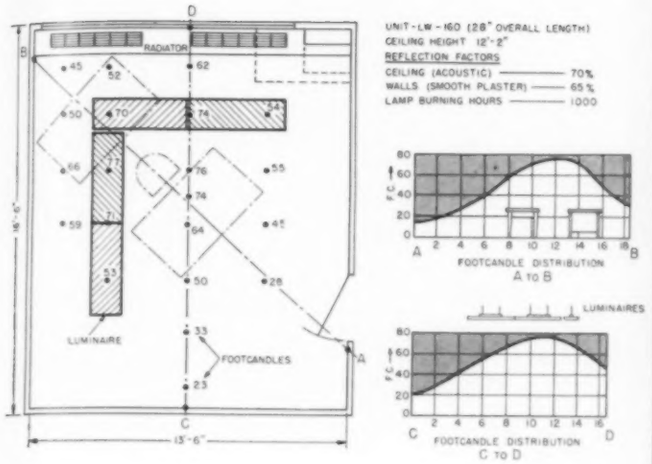
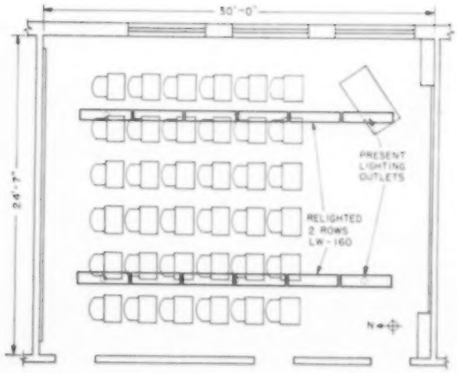


Fig. 4. **The principal function of private-office lighting is to provide comfortable, adequate seeing conditions for the person working at the desk or table. Therefore, illumination should originate from around and behind the worker, not in front of him. This non-symmetrical arrangement results in comfortable seeing, eliminates direct and reflected glare, yet illumination is concentrated on desk and table, as shown by foot-candle curves along line A-B.**

Fig. 5. **School relighting programs require careful planning to achieve the objective of sufficient, comfortable, healthful light on desks and chalkboards, at minimum over-all cost. In the example illustrated, two rows of louvered, direct-indirect fluorescent luminaires provide over 40 foot-candles (average) on desks. Bottom louvers shield lamps at normal viewing angles and also prevent accumulation of dirt, bugs, and paper wads.**



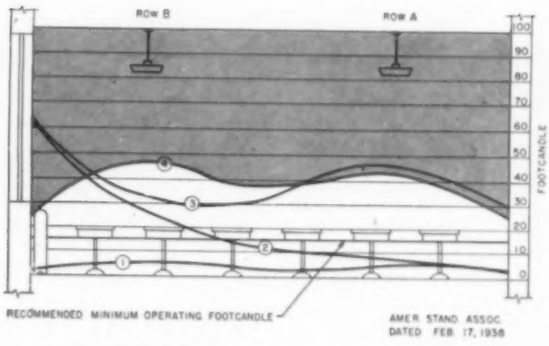
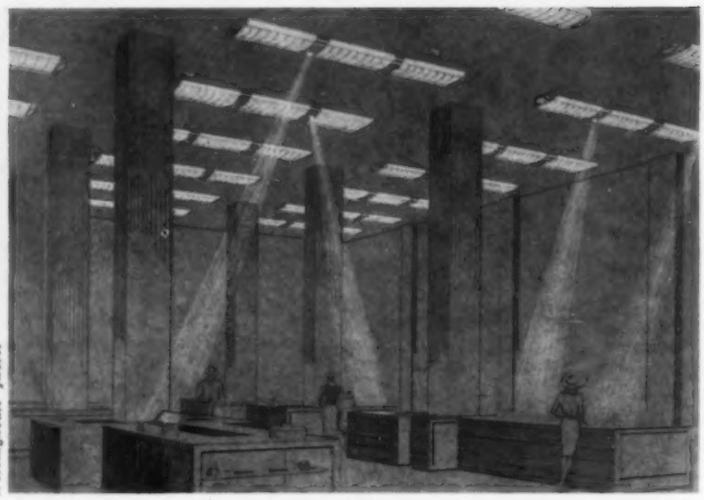


Fig. 6. **Analysis of lighting in same classroom: *Curve No. 1:* Artificial illumination before relighting; *Curve No. 2.* Daylighting measured on a typical day when the sun was not shining; *Curve No. 3:* Daylight supplemented by artificial illumination from the inner row of luminaires; *Curve No. 4:* Illumination from both rows of luminaires without any daylight.**



Westinghouse photos

Fig. 7. **A practical store lighting system, designed to help sell merchandise, includes direct fluorescent lighting for general illumination and incandescent spotlights for accenting displays. Spotlights are all adjustable; any one or all may be used simultaneously to meet particular requirements.**

Control of brightness distribution is very important in classrooms because the interior illumination must compete with daylight. Looking out the window, the child perceives brightness levels of 100 to 2000 foot-lamberts.* Then, turning to the chalk board, he may find a brightness as low as 3 or 4 foot-lamberts. The eye is severely strained when subjected quickly to such tremendous changes in brightness. How, then, can this source of strain and discomfort be minimized?

1. By properly shading the windows.

2. By increasing the illumination level within the room, thus increasing the writing board brightness. (At least 30 foot-candles of general light should be provided and higher levels are desirable.)

3. By increasing the reflection factor of the interior surfaces with a light finish on walls and ceiling, light-colored chalk boards, and light desk tops.

STORES

The main function of store illumination is to sell merchandise. Lighting may contribute to a sale in three successive steps: to bring the customer into the store, to create a desire to buy, and to assist the customer in appraising the merchandise.

Light on the merchandise is most important. When the customer walks into the store he should be attracted to the merchandise, not to bright light sources. Thus, all sources should be shielded, and light directed to counters, displays, and wall cases.

The store should have adequate general illumination, plus accent lighting in showcases and on feature displays. Displays are very important, as was proven by a recent survey made by a large manufacturer. This study revealed that 53.8 cents per dollar spent in department stores comes from impulse buying. Ninety percent of this business includes merchandise on display.

Displays in most stores are being constantly changed, so changes in lighting must be anticipated. The lighting should be flexible, easy to service, and economical in terms of its relationship to sales (**Fig. 7**).

AUTOMOBILE REPAIR SHOPS

During the war many dealers learned that there could be profit in an automobile agency, even with no new cars to sell. The service shop and parts department were sources of considerable revenue, and now progressive dealers want to maintain this business by providing more modern facilities. Better illumination can contribute to increased service sales, as customers are impressed by modern, neat working facilities. The functions of illumination in the shop are:

1. Adequate visibility for workmen.
2. Attractive, neat appearance for customer.
3. Minimum investment and operating cost.

To meet all these requirements, localized general lighting has been found to be the practical answer (**Fig. 8**).

INDUSTRIAL PLANTS

In the factory lighting is a production tool. The results of good lighting are improved morale, fewer accidents, better housekeeping, fewer errors, and increased output. But lighting as analyzed by the architect serves more detailed and definite functions, which vary in different manufacturing operations.

In the machine shop lighting assists in the visibility of micrometers, scales, and gauges; makes scribe marks visible; and permits workmen to read specifications and drawings accurately. **Figure 10** illustrates the result of proper lighting.

Lighting in the weave shed of a textile mill has many functions in operating and maintaining the loom, but the most essential is inspection of the cloth as it is being woven. A sufficient quantity of light, and proper distribution, direction, and brightness of the source are important. For example, it has been found that fluorescent luminaires should be installed at right angles to the needle bar to prevent harsh shadows.

In the chipping and scarfing area of a steel mill the most difficult seeing task is the detection of small cracks in the surface of the billets. Inspectors must locate these cracks so that they can be burned or chipped out; for this purpose the highest practical level of illumination should be provided. Modern steel mills are finding levels of 30 to 50 foot-candles practical and economical using 3000-watt mercury lamp equipment.

Countless other examples of the "functions" of lighting can be cited, and the same conclusion will be drawn. *All* lighting must be functional if it is to accomplish its intended purpose. Therefore, the illumination system must be planned with the building in relation to all other factors such as space layout, decoration, acoustic treatment, air conditioning, and equipment arrangement. Planned lighting is the only kind that is economical in the long run; and planned lighting is the answer to better vision.

*The foot-lambert is a unit of brightness and may be defined as a reflected or transmitted "foot-candle." That is, brightness is the illumination in foot-candles times the reflection factor of a surface.

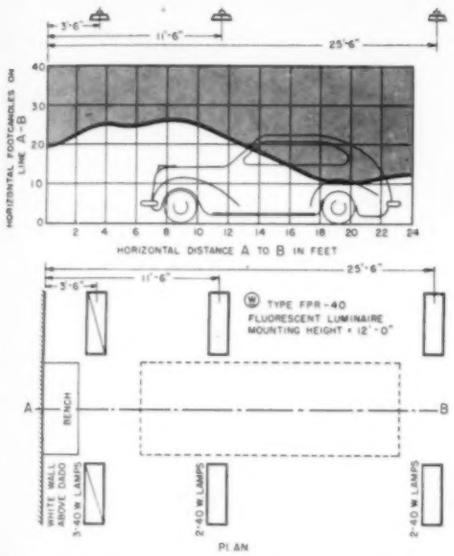


Fig. 8. **Functional lighting design in a modern garage gives maximum visibility, neat, inviting appearance, and economic justification for every luminaire installed. Lighting layout in the motor repair stall is an example of functional planning for each operation; with maximum illumination where most needed, that is, over the motor and work bench.**

Fig. 9. **Various parts of this factory lighting system are designed for several functions. The continuous-row general lighting, at 14' mounting height, serves all general factory operations. Luminaires over the benches provide the higher illumination levels required for precision inspection work. The large-area, low-brightness light hoods (right foreground) improve visibility of vernier scales and micrometers and shield out annoying reflections from daylight transmitted by overhead skylights.**

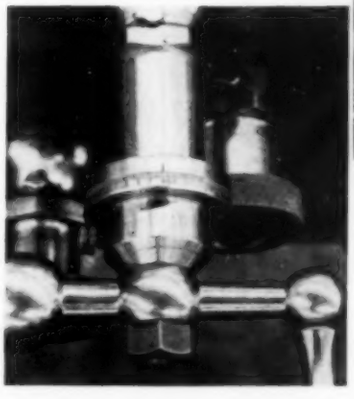


Fig. 10. **In a tool room, machinists must frequently use micrometers, steel scales, and micrometer adjustments on machine tools. Each is a difficult seeing task; one of the functions of lighting is to improve visibility for such purposes. By installing luminaires in two directions in a grid pattern, the graduated markings and numbers are easily seen against a luminous background which is a reflection of the low-brightness, large-area fluorescent sources. In this case visibility depends upon reflected luminaire brightness rather than on foot-candles on the work.**

Richard J. Neutra

North (sunny) facade of the projected University Maternity Hospital for Sao Paulo, Brasil (Rino Levy, architect) is essentially a composition of various sun control devices. These include minimum openings, deep porches and balconies, and a grillwork of vertical louvers, utilized in accord with the needs of interior space for sun and light penetration.

SUN CONTROL DEVICES

A presentation based primarily on examples collected in South America by RICHARD J. NEUTRA.

EDITOR'S NOTE: The earliest modern attempts at architectural integration of sun control devices to come to our attention were Le Corbusier's, exemplified in his apartment house for Algiers. Since then the architects of much of the literate world have continued to formalize devices which have grown up informally in regions where the sun is strong. Lighting engineers, in experiments in Texas, Massachusetts, and our Middle West, have investigated the scientific control of natural light in order to offset its ill effects. Manufacturers have brought products for the purpose to our attention: a patented, adjustable exterior Venetian blind from France, sent to us with word of the interest expressed by American G.I.'s; a slotted aluminum awning produced in the U. S. A.; polarized, anti-glare, and anti-heat glass; and others. Meanwhile traditional methods of excluding unwanted sun have continued in use, some of them more successful than certain highly rational formal attempts. Most of the successful devices, formal or naive, have a common principle: they stop the sun before it hits the glazing. The problem is of course acute in most of Latin America. We are indeed grateful to Mr. Neutra for assembling the majority of the accompanying illustrations and furnishing the incentive for this presentation.

No other single feature of South American architecture has excited as much attention as the conspicuous means of controlling sunlight which characterize the buildings. Vertical, movable louvers are particularly intriguing to me because a decade ago I experimented with this type of device, although I did not pursue my ideas to an ultimate conclusion. At the time we sketched various solutions for execution in different materials, some simple and some increasingly complex and mechanical.

Later I learned of the patents held by architect and city-planner Julio Villalobos of Buenos Aires, covering movable vertical blinds, of which he has shown me many executed examples. Good use has been made of this device by Ferrari, Hardoy, and Kurchan in elaborate apartment buildings in Buenos Aires; by Roberto Brothers in their Resiguros Building and others in Rio de Janeiro; by Kneese de Mello in Sao Paulo; by Oscar Niemeyer, who has used it with great freedom in his church and yacht club at Pampulha. Le Corbusier has suggested *bris soleil* of a similar type; Gropius has experimented with projected trellises. These are only a few examples. Other remarkable pieces of equipment, such as glass louvers operated by concealed cables, roll shutters, and mechanized, custom-built, metal sash and doors, have been splendidly used by Gregor Warchavchik, Wladimir Acosta, and other Latin American architects.

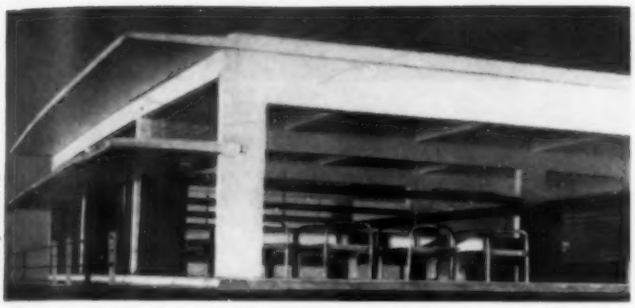
Rather early, I started to use polarized, glare-resistant glass, especially when a building had to face both the beauty of the western ocean and the setting sun's reflection in it. I decided that no blind could compete with such a simple method. However—and quite apart from the high cost of glass in South America and other places—there are two occasions when some sort of blind would appear to be the best solution: first, when there is no glass at all, as in tropical climates where local breezes must be turned to advantage; second, when there is no view from a window, and blinds can serve to exclude the undesirable sight as well as unwanted sun.

Many of the accompanying illustrations, in contrast to my own designs (which utilize thin aluminum blades), employ asbestos-cement and fiber boards, or vanes prefabricated of reinforced concrete, which I assume should be vibrated or subjected to vacuum when manufactured.

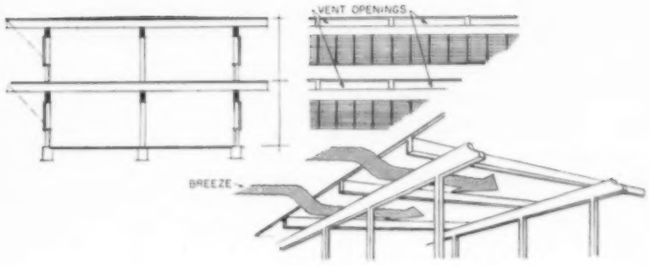
—RICHARD J. NEUTRA

Hedrich Blessing

Esther Born



Richard J. Neutra



CANOPIES: VENTILATION PROBLEMS

Simplest of the many devices is the canopy—marquee, porch roof, slatted sunshade; it has many forms. Top left, house near Chicago, George Fred Keck, architect; top right, Fowler Elementary School, California, Franklin and Kump, architects (used here with auxiliary exterior roller shades; the wing walls serve primarily to give privacy to adjacent classrooms); lower left, scheme for Puerto Rican hospitals, Richard J. Neutra, architect; lower right, scheme developed for tropical health centers by Neutra. Illustrations also show four methods of ventilating: Keck's house has fixed glazing and louvers with interior doors; the school employs horizontal pivoted sash; in Neutra's hospital scheme note great floor-to-ceiling height, double sun canopies, and open lower walls for through ventilation. In the health center scheme openings between rafters over a "spandrel" beam admit breezes; folding louvered metal blinds and overhangs control sun.

G. E. Kidder Smith

Richard J. Neutra

G. E. Kidder Smith

BALCONIES

Further development of the canopy idea is its use as a balcony, both as a pleasurable adjunct to rooms and as means of circulation—in some cases replacing interior corridors. Top, left, balconies and translucent screens on the sunny facade of a building in Sao Paulo, Rino Levy, architect. Top, center, normal school in Bahia, Brasil, where classroom corridors are also sunshading balconies. Top, right, restaurant and swimming pool, Stockholm, Sweden, Paul Hedquist, architect. At right, Valencia Gardens (housing development), San Francisco, Harry A. Thomsen, Jr., and W. W. Wurster, architects, also uses balconies as sunshade-corridors.

Roger Sturtevant

Shulman

Richard J. Neutra

PIERCED CANOPIES

Left, "lath house," Hallawell Seed Co., San Francisco, Raphael Soriano, designer. Right, "egg-crates" of light concrete construction in a Brasilian building, Gregor Warchavchik, architect. Both show methods of varying the degree of sun control. Other similar devices include boards set at the correct vertical angle for excluding sun at certain seasons, admitting it at others (used by Alfred and Jane Clauss, by Ernst Payer, and others); total projection, spacing, and inclination of members are determined by sun inclination and direction for the individual localities.

G. E. Kidder Smith

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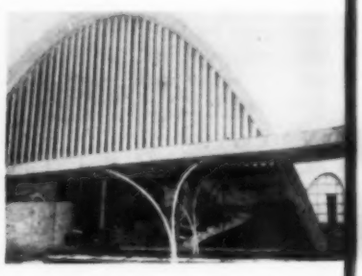


FIXED VERTICAL LOUVERS

Left, first widely published South American example of this device was Robe Brothers' Rio de Janeiro building for the Associacao Brasiliera de Imprensa, wh has inspired many subsequent structures. Right, most recent Brasilian exam facade of Oscar Niemeyer's church at Pampulha, Bello Horizonte.

Richard J. Neutra

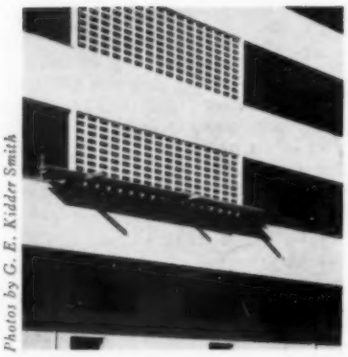
EXTERIOR BLINDS

Common in Mediterranean buildings, the adjustable exterior blind can function like an awning in excluding sun, but is superior because its slotted construction admits breezes. Top, apartment house in Brasil, Alvaro Vital Brazil and Adhemar Marinho, architects; below, beach house, Conde Crespi, Garuja, Brasil, Gregor Warchavchik, architect.

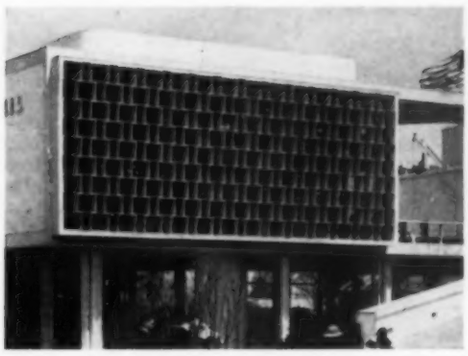
Richard J. Neutra

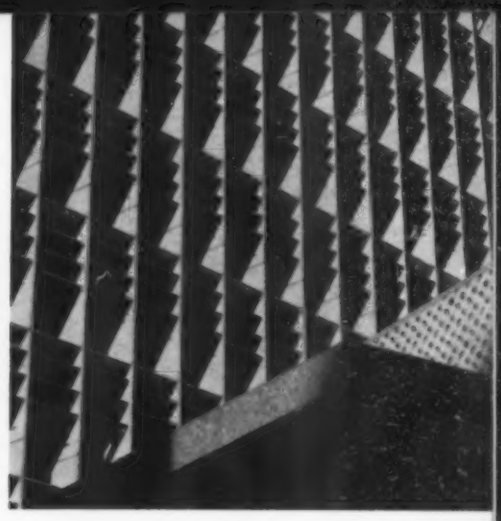
OPERABLE LOUVERS

Various types of mechanically operated louvers permit any degree of sun penetration desired. From left to right: office building in Sao Paulo (Edificio Leonidas Moreira), Eduardo Kneese de Mello, architect; boat passenger station, Rio de Janeiro, Corrêa Lima, architect; apartment house (utilizing the system patented by Julio Villalobos) in Buenos Aires, Ferrari, Hardoy, and Kurchan, architects; system devised by Richard J. Neutra, employing movable aluminum blinds.



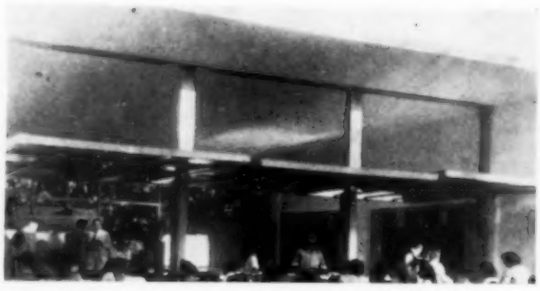
Photos by G. E. Kidder Smith





VERTICAL SCREENS, "EGG-CRATES," ETC.

Sometimes merely a pierced screen, sometimes more elaborate in conception, sometimes with movable portions, this type of device offers many opportunities for rich treatment of facades. Left, apartment house, Rio de Janeiro, has concrete screens at intervals along sunshading balconies. Center, Brasilian Pavilion, N. Y. World's Fair 1939, Lucio Costa, Oscar Niemeyer, architects; P. L. Weiner, associate. Right, north facade, Ministry of Education and Health, Rio de Janeiro, for which Le Corbusier was a consultant.



Richard J. Neutra

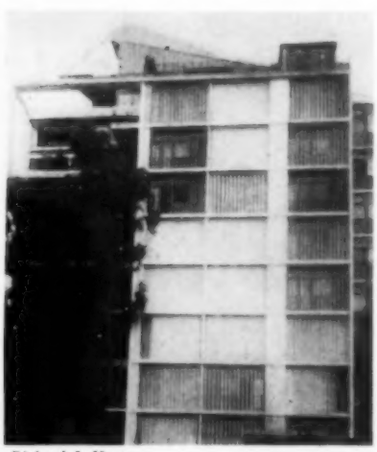
PIVOTED WALL SECTIONS

School in Puerto Rico, Richard J. Neutra, architect, employs horizontally pivoted wall sections both as sunshades and to permit complete ventilation. Note the extensive roof overhang which shades the upper portion.

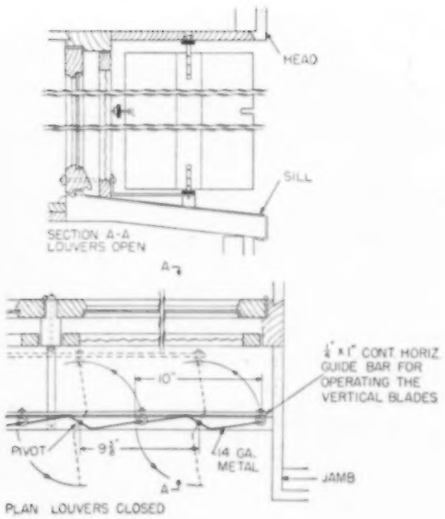
ANTI-SUN GLAZING

Proposed Schenley Building for Cincinnati, Ohio, Woodie Garber, designer, based entirely on the use of actinic glass in prefabricated double glazing—a method of which Neutra is also a strong advocate. He also suggests use of polarized glass.

E. Kidder Smith



Richard J. Neutra



PLAN LOUVERS CLOSED

MANUFACTURERS' LITERATURE

Editor's Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.

Air Treatment

8-138. *The Answer Book on Home Heating, (SP-00-90),* General Electric Co. (See 8-138 under "Heating".)

1-53. *Strato-Liminator,* Wilster, Inc. Reviewed September.

Awnings

1-54. *Aluminum Awnings Are Something Between You and the Sun,* Aluminum Awning Co. Reviewed September.

Bathroom Equipment

2-11. *Tiletone Shower Cabinets (22b-3),* 8-p. illus. booklet; shower cabinets, porcelain-enameled iron or glass, for houses, garages, basements—standard or corner receptors. Fittings, accessories. Tiletone Co.

Communication Systems

3-65. *Amplified Intercommunication Systems, AIA 31-i (TL-36),* Webster Electric Co. Reviewed September.

Controls

3-66. *The Weather-Man Controls Building Temperature from the Outside (Bulletins A-446, B-546),* 12 pp., illus. Installation and operation of thermostatic control actuated by outdoor temperatures, for houses and buildings; data on wiring connections, settings, readjustments. Automatic Devices Co., Weather Controls.

3-67. *Special-Built Time Switches for the Volume User (Bulletin T-55),* 4 pp., illus., giving six examples and descriptions of how time switches met outlined specifications. Automatic Temperature Control Co., Inc.

Doors

4-57. *Berry Aluminum Overhead Type Garage Doors,* Berry Door Co. Reviewed September.

4-58. *Truscon Straight Slide Steel Hangar Doors (C-30),* Truscon Steel Co. Reviewed September.

Drafting Room Equipment

4-59. *Pomeroy Stereograph Drawing Machine,* Pomeroy Stereograph Co., Inc. Reviewed September.

4-61. *Spend Your Time On Design,* illus. folder (3½x6), describing transparent plastic templates for windows, house plans, standard symbols. Includes application, prices, sizes. Timely Products Co.

4-60. *The New Universal Boardmaster,* Universal Drafting Machine Co. Reviewed September.

Electrical Equipment

★ **5-34.** *Handbook of Farmstead Wiring Design, AIA-31-C-61,* 55 pp. Basic requirements of wiring layouts for farm buildings, farmhouses, exterior wiring. Recommendations. Details for placing outlets and switches. Industry Committee on Interior Wiring Design. (40 cents per copy—make payable to the Industry Committee on Interior Wiring Design.)

Fire Protection

6-73. *"Automatic" Sprinkler Systems (Bulletin 56),* 20 pp., illus. Data on all types of industrial and commercial sprinkler installations; on fire alarms and automatic controls. Detail drawings. "Automatic" Sprinkler Corp. of America.

Flooring

From Armstrong Cork Co. Reviewed September:

6-69. *Ideas for the Retail Confectioner Who Wants A Shop That Attracts Customers.*

6-70. *Store Planning Ideas for the Appliance Dealer Who Wants to Build a Successful Business.*

6-71. *Maximent,* Maximent Corp. Reviewed September.

6-72. *Industrial Flooring and Marine Decking,* Miller Marine Decking, Inc. Reviewed September.

Gypsum and Gypsum Products

★ **7-53.** *New Water-Repellent Gypsum Sheathing,* 11-p. illus. booklet with detailed diagrams on specifications, advantages of water-repellent, fireproof, gypsum sheathing. Gypsum Association.

Hardware

8-136. *Authotone Chimes (No. 110),* 8-p. illus. folder on manually operated two-tone door chimes; prices. Auth Electrical Specialty Co., Inc.

8-137. *Hardware for Casement Windows,* 8-p. catalog covering internal and external casement window operators and accessories for wood and metal sash; installation details and dimensions; also features new reversible wood casement window operator. H. S. Getty & Co., Inc.

8-120. *Door Holding Devices & Builders' Hardware Specialties for Distinctive Buildings, AIA 27B,* Glynn-Johnson Corp. Reviewed September.

8-121. *Lockwood Finishing Hardware, Simplified Specifications,* Lockwood Hardware Mfg. Co. Reviewed September.

8-122. *Schlage Luster Sealed Aluminum Locks (Form 364),* Schlage Lock Co. Reviewed September.

Heating and Heating Equipment

8-105. *Quick Heat Oil Furnaces for Automatic Heating,* American Stove Co. Reviewed September.

8-106. *New Units of Complete Norge-Heat Line,* Borg-Warner Corp., Norge-Heat Div. Reviewed September.

8-124. *Radiant Heating the Smart Modern Way With Radiant Baseboards (Form 859B),* Burnham Boiler Corp. Reviewed September.

8-125. *Electromode Electric Home Furnace,* Electromode Corp. Reviewed September.

★ **8-138.** *The Answer Book on Home Heating (SP-00-90),* 26-p. illus. consumer brochure; simplified explanation of types of house heating, air conditioning, and air-cooling units and systems. General Electric Co.

8-126. *Herco Residential Oil Burner,* Herco Oil Burner Corp. Reviewed September.

8-139. *Hoffman Economy Heating Pumps. AIA 30-C-5 (Cat. VCP 1045),* 24-pp., illus. Vacuum and condensation pumps. Brief descriptions, standard and special capacities, engineering data, specifications, installation diagrams. Hoffman Specialty Co.

8-113. *Iron Fireman Model V Oil Burner (1145),* Iron Fireman Mfg. Co. Reviewed September.

8-140. *Precision-Built Clark, AIA 30-G-1,* 6-p. illus. folder on horizontal rotary oil burners; commercial, industrial; capacities, ratings, general specifications; detail drawings. National Oil Burner Co.

8-127. *Petro Automatic Boilers (Form 7),* Petroleum Heat and Power Co. Reviewed September.

8-141. *Rutledge Steel Water Tube Heating Boilers,* 4-p. folder on features of steam heating boiler for houses, office buildings, etc. Engineering data; ratings. R. W. Rutledge Water Tube Boiler Co.

8-128. *Mammoth Certified Vertical Steel Tubular Heaters (216C),* Stainless & Steel Products Co. Reviewed September.

8-150. *Thatcher New V Series Comfortmaster,* 4-p. illus. folder; oil-fired air conditioning furnace, residential; engineering data and dimensions. Thatcher Furnace Co.

8-129. *Triplex Products That Assure Hot Water at Its Best (Bulletin 246),* Triplex Heating Specialty Co. Reviewed September.

Hospital Equipment

From American Laundry Machinery Co. Reviewed September:

8-131. *Typical Laundry Layout for 25-Bed General Hospital.*

8-132. *Typical Laundry Layout for 50-Bed General Hospital.*

8-133. *Typical Laundry Layout for 100-Bed General Hospital.*

8-134. *Typical Laundry Layout for 150-Bed General Hospital.*

8-135. *Typical Laundry Layout for 200-Bed General Hospital.*

8-130. *Sterilizers, Operating Lights, Infant Incubators, Laboratory Apparatus for Every Hospital,* Wilmot Castle Co. Reviewed September.

Insect Control

9-51. *Automatic Fly Control by Electricity,* Detjen Corp. Reviewed September.

Insulation

★ **9-53.** *Eagle-Picher Insulation (A-192),* 28-p. illus. manual covering insulation in low temperature and

cold storage fields. Detailed data and application instructions, installation sketches, charts, and technical details. Eagle-Picher Co.

9-52. *PC Foamglas Core Wall Insulation (G-4633)*, Pittsburgh Corning Corp. Reviewed September.

Kitchen Equipment

11-11. *Murphy Cabranette Kitchens (Bulletin 4146)*, Dwyer Products Corp. Reviewed September.

From General Electric Co. Reviewed September:

11-12. *The Studio (AP1-46A8).*

11-13. *The Leader (CT1-46).*

11-14. *The Airliner (CD3-46).*

11-15. *The Stratoliner (DD2-46).*

3 illus. specification sheets on residential electric refrigerators, from General Electric Co.:

11-16. *Model LB7-B.*

11-17. *Model B7-C.*

11-18. *Model LBX7-B.*

11-19. *General Electric Disposall (565-1953)*, 4-p. illus. specification sheet on electric sink-appliance for food-waste disposal. Roughing-in diagrams. General Electric Co.

11-21. *Make Your Old Kitchen New*, illus. folder (3½x6¼); steel cabinets and sinks for household kitchens. Includes suggestions, sizes, dimensions. Morton Mfg. Co.

11-20. *How To Make Your Kitchen Dream Come True (3083)*, Mullins Mfg. Corp. Reviewed September.

Lighting and Lighting Equipment

12-80. *How To Get The Most From Fluorescent Lighting*, 8-p. illus. booklet (5¼x7) containing a check list to help select fluorescent fixtures for economy and working efficiency. Day-Brite Lighting Inc.

3 booklets on modernization of lighting and fixtures in schoolrooms and offices. General Electric Co. (5 cents per copy—make payable to General Electric Co.):

12-81. *A Ceiling of Light for Tomorrow's Classrooms (Y550).*

12-82. *Arches of Light for Modern Schoolrooms (Y551).*

12-83. *Remodeling With Light To Streamline Office Space (Y552).*

12-84. *Ceilings Unlimited*, 70-p. illus. booklet (spiral bound) fully covering fluorescent lighting trofer systems. 3 sections: What They Look Like, How They Work, and How To Specify Them. Includes applications, advantages; installation and dimensional data; details of fixtures and double-duty furred ceiling and fixture hangers. Miller Co.

12-85. *Fluorescent Lamps (A-4759)*, 24-p. illus. booklet; sketches and diagrams of construction and function of ballasts, starters, and lampholders for fluorescent lighting. Westinghouse Electric Corp.

12-78. *Castle Lights (Cat. 45)*, Wilmot Castle Co. Reviewed September.

Load Transportation

12-79. *Lamson Conveyors, Pneumatic Tubes, Trayveyors (Form 146)*, Lamson Corp. Reviewed September.

Paints

16-115. *Painting for Light and Decoration*, 24-p. illus. folder on "Luminall" paint. Color chart giving light reflection values for each shade; specification and application details, for both interior and exterior paints. National Chemical & Mfg. Co.

Piping Equipment

16-112. *The Threading of Wrought Iron Pipe (P. O. 6270)*, A. M. Byers Co. Reviewed September.

Plastics

16-113. *Plastics Primer*, Dow Chemical Co. Reviewed September.

Plumbing Equipment

16-114. *Pressure Flow Charts*, Wade Mfg. Co. Reviewed September.

Plywood

16-116. *Weldwood Plywood for Interiors*, 19-p. illus. booklet; clear description of field installation, details of fitting plywood around windows, doors, joints, and corners. U. S. Plywood Corp., and the Mengel Co.

Roofing

18-36. *Flintkote (BK-216)*, Flintkote Co., Inc. Reviewed September.

Shop Equipment

19-64. *"Hallowell,"* 40-p. illus. technical catalog of standard sizes and types of steel shop equipment primarily for industrial use; charts; prices. Standard Pressed Steel Co.

Stairs

19-62. *Free Footsteps from Fear with Wooster Safety Treads*, Wooster Products, Inc. Reviewed September.

Storage Equipment

19-56. *America's Checking Habits Are Being Changed*, American Locker Co., Inc. Reviewed September.

Television

20-27. *The Truth About Color Television*, Allen B. Du Mont Laboratories, Inc. Reviewed September.

Toilet Compartments

20-29. *Sanymetal Toilet Compartments and Toilet Room Environments (Cat. 84)*, 18 pp., illus. Five types of porcelain-on-steel toilet and shower compartments; also porcelain-on-steel wainscoting. Sanymetal Products Co., Inc.

Trims

20-28. *Beautify and Protect with Loxit Metal Mouldings and Accessories*, Loxit Moulding Co. Reviewed September.

20-30. *Plastiktrim for Functional Beauty*, 6-p. illus. folder; plastic nosings, edgings, coves, wall mouldings, cap sections. Specifications, application and installation details, stock sizes, and colors. R. D. Werner Co., Inc.

Valves

From Alloy Steel Products Co. Reviewed September:

22-16. *Stainless Steel Aloyco Valves, Technical Bulletin 2.*

22-17. *Aloyco Stainless Steel Corrosion Resistant Valves.*

Ventilation

22-18. *Ilg Ventilating Fans (Bulletin A1041)*, consumer folder; residential ventilating fans; characteristics, dimensions, installation data. Ilg Electric Ventilating Co.

Waterproofing

23-73. *The Truth About Aquella*, 23-p. illus. booklet describing a waterproofing for porous masonry (withstands hydrostatic pressure of 500 lbs per sq ft). Technical data, test results, letters of recommendation. Prima Products, Inc.

Windows

23-74. *Light Up Your Living*, 22-p. illus. folder; Silentite "insulated" windows and casements; installation, advantages, characteristics. Charts of stock sizes, window designs, window and door trim. Curtis Companies, Inc.

MANUFACTURERS' LITERATURE

PROGRESSIVE ARCHITECTURE—Pencil Points, 330 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.

We request students to send their inquiries directly to the manufacturers.

No.	No.	No.	No.
No.	No.	No.	No.
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BOOKS

Specifications and Costs *(Vol. II of* The Data Book for Civil Engineers). *Elwyn E. Seelye. John Wiley & Sons, Inc., 440 Fourth Ave., New York, N. Y. Cloth bound, 325 pp., 9¾x11⅞. Illus., tables, charts, sample spec. and cost sheets, glos., index. 1946. $6.75*

Second in this series (Vol. I, published earlier this year and previously reviewed here, was titled *Design;* Vol. III will appear soon, titled *Field Practice*); this is a logical, valuable continuation. It starts with a section on contract documents ranging from the invitation to bidders to standard general conditions for engineering construction, special conditions, and a check list. Following are general structural specifications, specifications for certain types of construction (airports, roads, railroads, bridges, docks, dams, drainage, sewage treatment, and water), and a section on costs. The book closes with a quite complete glossary of technical terms used in various types of engineering construction—one of the few sources available for this specialized terminology. The index is thoroughly cross-referenced; this and the general arrangement make it extremely easy to find any desired item.

The specification sections, although they are brief and incorporate by reference such documents as those developed by ASA, ASTM, Fed. Spec., and several other reliable sources, do not conform completely to the ideal of the proponent of "streamlining." Each section starts with a Scope-of-Work paragraph (usually left blank so the user can word it to suit himself) and the sentences are grammatically complete. Yet there is little excess verbiage, and although there may be in the entire volume one or two such inclusive phrases as "other objectionable material," the language is remarkably direct, simple, and understandable. Product names are used as standards of reference. It would be hard indeed to wriggle out of a contract based on such specifications.

The whole series, of course, has one purpose: directness. Data are carried to *final* conclusions; design and specification information *are* specific, based upon the best judgment and experience of the author and his numerous staff. Since Mr. Seelye's firm is one of the best in the country, the only serious objection to this formula is that common to all reference volumes—while the portions of the work based on engineering principles will very likely have an extremely long useful life, those dealing with methods and products will inevitably become dated as developments progress. It is to be hoped that, when this occurs, competent revisions will be made, and that those who use it will not permit its facts to become substitutes for fundamental understanding and inspiration. Within such limitations the series has no peer in America.

MANUALS, PAMPHLETS

American Concrete Institute Standards—1945. *American Concrete Institute, New Center Building, Detroit 2, Mich. Paper bound, 145 pp., 6x9. Illus. tables, charts. $1.50 ($1.00 to ACI Members).*

This volume contains ACI standards adopted since the inauguration of current procedures for consideration and promulgation. *Not* included are "proposed" standards or those ratified prior to 1937. Eventually, after thorough review, some of these latter may be readopted. Separate titles which do appear are: Building Regulations for Reinforced Concrete (ACI 318-41); Recommended Practice for the Use of Metal Supports for Reinforcement (ACI 319-42); Recommended Practice for Measuring, Mixing, and Placing Concrete (ACI 614-42); Recommended Practice for the Design of Concrete Mixes (ACI 613-44); Specifications for Concrete Pavements and Bases (ACI 617-44); and Specification for Cast Stone (ACI 704-44). Prints of individual specifications are also available at 25¢ or 50¢, or at reduced cost if ordered by ACI members, or ordered in quantity.

Arc-Welded Steel Structures, Manual of Design for. *La Motte Grover. Air Reduction Sales Co., Dept. MD, 60 East 42nd St., New York 17, N. Y. Leatherette. 281 pp., 6x9. Illus. tables, charts, photos, drawings. 1946. $2.00*

Based largely on standards of the American Welding Society, AISC, and reports of the Welding Research Council of the Engineering Foundation, this manual brings together under one cover what the author and publishers believe to be the most authoritative information on the subject. It draws also on the experience of Air Reduction, manufacturers of "Airco" welding equipment. However, the scope of the manual is extremely broad; it covers almost all methods and products available, and there is no distinction between patented and unpatented materials and processes. There are three main portions: Fundamentals of Design, Standardized Welded Connections and Load Tables, and Reference Data. The first includes a general discussion, characteristics of welded design, types and sizes of welds, details, specific design procedures, cost estimating, and inspection. The second comprises a discussion of the kinds and use of standard connections, safe load tables for standard welded structural shapes, piece marks, etc. The third contains a glossary of terms and definitions, symbols, weld profiles, types of and requirements for electrodes.

Building Code Modernization *(a series of reference bulletins). American Iron and Steel Institute, 350 Fifth Ave., New York 1, N. Y. Paper bound, 70 pp. 6x9. 1946. Free*

The AISC has produced a series of eight reference bulletins covering technical phases of building code regulation, based on a long-term study of building practices throughout the United States. The program was started in 1938 by the Institute's Committee on Building Codes, of which R. E. Zimmerman is chairman, and B. L. Wood, an outstanding authority on codes, is consulting engineer. The motive behind the publication, of course, is the current need for code modernization to place regulatory requirements on a more scientific basis than exists and to make provision for new building materials and techniques. Included are facts related to the purpose and legal limitations of building codes, contents and arrangement, building classification, fire hazards, fire regulations, structural standards in form suitable for code use, all based on the most recently recognized standards and on sound, conservative engineering practice.

Hidden Hazards *(construction for fire resistance). Insurance Company of North America, 1600 Arch St., Philadelphia 1, Pa. Paper bound, 64 pp., 8½x11, illus., tables, photos, drawings. 1946. Free*

A semi-technical, semi-emotional compilation of house-construction details designed to minimize fire hazards, this pamphlet does explain, in a way that the average house-builder can probably comprehend, why the minimum details which a reasonably good architect always insists upon are really essential. The illustrations and examples are selected from average building practice; there is nothing beyond that in the way of basic principles to guide the designer who is using advanced materials and technics.

Industrial Mineral Wool Products, All Types—*Testing and Reporting. Commercial Standard CS 131-46. Supt. of Documents, Government Printing Office, Washington 25, D. C. Paper bound, 40 pp., 6x9, illus. Mar. 15, 1946. 10 cents*

A joint effort of the Industrial Mineral Wool Institute and the National Bureau of Standards, this commercial standard has been accepted by some 225 associations and manufacturers. It establishes uniform procedures for testing and reporting on various properties of mineral wool products made from rock, slag, or glass.

Notice to Readers: Unfortunately, PROGRESSIVE ARCHITECTURE has no facilities for obtaining for readers copies of publications reviewed here. Copies are usually obtainable directly from the publisher concerned, whose address, when available, is given at the head of each review.

. . THERE **MUST** BE A REASON!

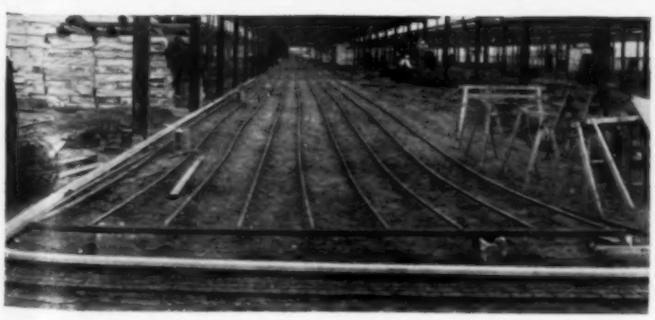
STANDARDS—THE IDEA SPREADS

Call it "Modular Coordination," or "Standardization," or what you will, the conception of universal bases for judging, accepting, and utilizing building materials and equipment has had an amazing growth during and since World War II. This is not just an American development, either; the housing shortage is international, and since shortage is one of the greatest incentives to standardization, the demand is just as world-wide. In this country the modular coordination program is one phase; standards for specification and construction constitute another; industry-wide standards of manufacturing and practice developed by trade associations and NBS, another; trends toward simplified specification writing and modular design techniques carry the idea into office practice.

Examples: 1. Within a few months the United Nations Standards Coordinating Committee has grown to include representation from 18 countries. It has been asked to consider international dimensional standardization—in other words, modular coordination—on a 10-centimeter (or 4-in.) basis. Difference between the two dimensions is very slight. The Committee expects to meet in London shortly. 2. France, through its *Association Francaise de Normalisation*, has set up its own modular standard (10 cm), manufacturing standards, standards of quality and testing, etc. 3. Sweden, through its *Byggstandardiseringen* (Building Standards Institute, affiliated with the Swedish Standards Association) started in 1942 to develop building materials standards and since 1943 has been working on a structural module, 100 mm (or 10 cm), which has already been voluntarily adopted by some manufacturers. 4. The *British Standards Institution* has already developed some 90-odd standards covering not only manufacturing, but also codes of good practice; while they apparently have not progressed yet to complete acceptance of the modular idea, many of their standards tend to reduce the variety of sizes of building materials.

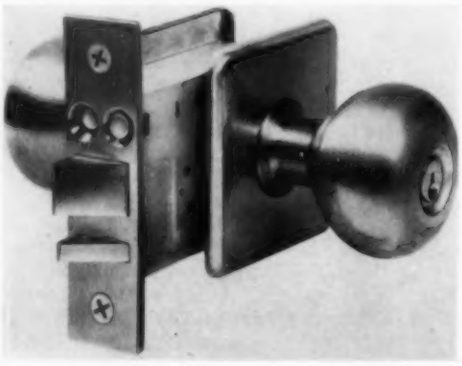
5. In the U. S. A., the ASA, Producers' Council, ASTM, NBS, numerous trade associations, individual manufacturers, architects, builders, magazines, etc., are deeply interested, as we have previously told you. Now comes official word of a manual on application of modular coordination in the drafting room, a guide which is a "must" for every architect. Written by Myron Adams (Secretary, ASA Committee A62 on Modular Coordination) and Prentice Bradley (architect, Modular Service Association, which supplies technical and secretarial service for Committee A62), it is being distributed by Modular Service Association, 110 Arlington St., Boston 16, Mass., at $10.00 per copy. It is reportedly quite complete. As soon as we receive a copy we'll review it in our "Technical Press" pages; meanwhile, you'd better not wait too long to order it.

Latest U. S. adherents to the modular program include Anderson Corp., Bayport, Mich., wood window manufacturer, which announces new sizes on a modular basis; Libbey-Owens-Ford Glass Co., Toledo, Ohio, which is now producing "Thermopane" in stock, modular sizes; Carr, Adams, & Collier Co., Dubuque, Iowa, who supply modular wood windows only; Southern Brick & Tile Mfrs. Assn., Atlanta, Ga.; General Clay Products Co., Columbus, Ohio; Owens-Corning Fiberglas Corp., Toledo, with modular insulation batts; and there will undoubtedly be others by the time you receive this issue.



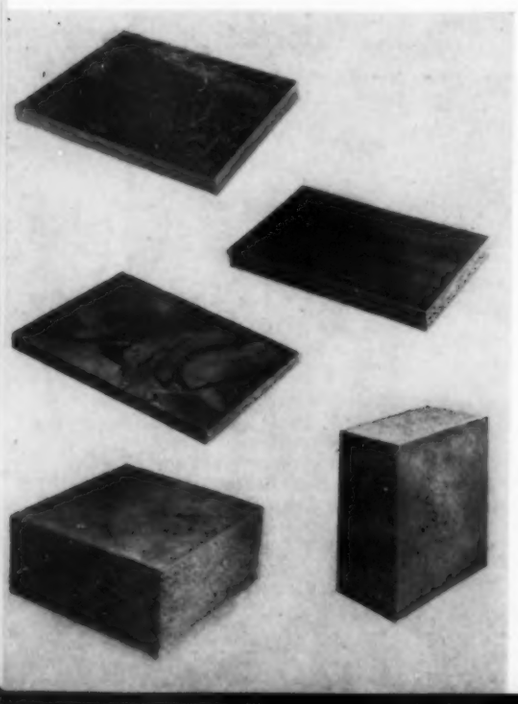
A. O. Smith Corp., manufacturers of many items for construction, including glass-lined tanks and water heaters, has just completed a new plant at Kankakee, Ill., which contains a remarkable radiant heating installation. This installation not only is huge (40 miles of piping) but also uses various piping materials—wrought iron, steel tubing, copper tubing—selected partly for engineering reasons, partly out of necessity, partly to test the materials in use. Upper left photo shows ⅜ in. copper tubing in an office ceiling, installed at distances o.c. which change as the heat requirements vary; upper right photo shows steel tubing, ceiling installation, for supplemental heat near a glass wall in the circular lobby; lower left photo shows wrought iron experimentally used in laterals 250 ft. long, with short headers; lower right photo shows wrought iron, typical grid construction, 140-ft headers, 20-ft laterals.

"Hy-Power Base Ray" heating baseboard, newest product of the Burnham Boiler Corp., for use in large rooms or where there is little baseboard space. Finned construction (concealed); for hot water, 2-pipe steam, or vacuum systems.



Sargent & Co's. "Integralock" (previously noted in these columns) is available in both mortise type, as pictured, and for cut-out installation. It is a precision-built mechanism, carefully machined, self-lubricating, and has a safety pin which snaps when the knob is forced—yet does not affect key operation. Designed before the war, it is Sargent's first new postwar product.

Experiments are being conducted, with the expectation of getting into production soon, on "Excelite," a material composed of reprocessed wood fiber which can be commercially produced in several types of board products. Illustrated are thermal insulating board with and without a high-density structural surfacing, with decorative veneer surfacing, etc., with Excelite used as a "sandwich" core; and a high-density structural board made of compressed Excelite.



THIS MONTH'S PRODUCTS

ADHESIVES, FASTENINGS

Kitco Mounting Plate. Device for attaching cabinets or appliances to smooth surfaces such as tile, glass, porcelain-enamel, where drilling is impossible, by means of adhesives. Kirch-Trumbull Corp., Alden, N. Y.

"Wood-Lok." A cold-run, liquid, fast-setting resin wood glue for joint assembly. Will not embrittle or form hard film, can be worked after approximately twenty minutes clamping time; white or darker shades. National Adhesives, 270 Madison Ave., New York 16, N. Y.

CONTROLS

Duo-Stat. Automatic instrument for radiant-heat systems to increase or decrease heat input in accordance with outdoor temperature changes. Johnson Service Co., 507 E. Michigan Ave., Milwaukee 2, Wis.

Diaphragm Regulating Valves. Single seated; cast iron, bronze, and steel bodies for steam, air, or gas pressures up to 1000 psi. Cooling bonnet for temperatures over 450 F. For process industries and power plants. Leslie Co., 58 Delafield Ave., Lyndhurst, N. J.

HARDWARE

Concealed Door Closers. For installation overhead, in door, or in floor; no interference with design of door. Norton Lasier Co., 466 West Superior St., Chicago 10, Ill.

HEATING, VENTILATING

"Hy-Power" Base-Ray Radiant Baseboard. 7"x2" metal baseboard heating unit, more powerful than the previously announced standard unit; for heating large areas or rooms where minimum baseboard space exists; for hot water, 2-pipe steam or vacuum systems. Burnham Boiler Corp., 2 Main St., Irvington, N. Y.

Koolvent. Aluminum awning, composed of metal strips with vents between, for free air circulation, admission of light, protection from weather. Kool-Vent Metal Awning Corp. of America, Keystone Bldg., Pittsburgh, Pa.

"Power-Throw" Unit Heater. Draw-through type heater capable of long-range discharge of heated air; for industrial and commercial use. Modine Mfg. Co., Racine, Wis.

Thermador Electric Wall Heater. Prefab units with 16-blade fan built in behind heating element, driven by 4-pole induction motor. Horizontal grille front directs warm air toward floor. Manual or thermostatic controls. Thermador Electrical Mfg. Co., 5119 District Blvd., Los Angeles 22, Calif.

KITCHEN EQUIPMENT

Formica Sink and Cabinet Tops. Laminated plastic shells for kitchen surfaces. Acid and alkali-resistant. Formica Insulation Co., 4620 Spring Grove, Cincinnati, Ohio.

Carlton Electric Range. Automatic-heat-controlled range, with 7 cooking speeds; well cooker. Kalamazoo Stove and Furnace Co., Kalamazoo, Mich.

Automatic Dishwashers. Model BE-646, free standing, for 24" x 25" space. Model BE-646, for continuous counter top arrangement. BE-646, for 48" x 25" space. Capacity up to 100 pieces of china plus pots and pans. One gallon water for each wash-rinse process. General Electric Co., Appliance and Merchandise Dept., Bridgeport, Conn.

LAUNDRY EQUIPMENT

Automatic Flatplate Ironers. AF-12, white console cabinet (36" x 19") with flat work surface; AC current only, 110 volts. AR-18 portable, 28" x 13" x 10", 33 lbs. AR-17 portable, manually operated. General Electric Co., Appliance and Merchandise Dept., Bridgeport, Conn.

Automatic Tumbler Clothes Dryer. Model AD-6, free-standing, white enamel coated. Thermostat control. Requires special wiring; 230 volts, 4600 watts; 1/6-hp motor. General Electric Co.

LIGHTING, LAMPS, EQUIPMENT

4500-White Lamps. Complete line of G-E fluorescent lamps in 4500°-white; 6-watt to 100-watt sizes. For houses, offices, stores, industrial plants. General Electric Co., Lamp Dept., Nela Park, Cleveland, Ohio.

4500° White Lamps. In 40-watt T12 and 100-watt T17 sizes, interchangeable with fluorescent lamps of same wattage ratings. Sylvania Electric Products, Inc., Salem, Mass.

MAINTENANCE

Tennant 15 Floor Machine. Electric floor-cleaning and polishing disc-type machine, low-built to permit use in hard-to-get-at areas. G. H. Tennant Co., 2530 2nd St., N., Minneapolis 11, Minn.

PAINT; PROTECTIVE COATINGS

Hydrozo. Mineral water-resistant liquid for two-coat spraying on concrete, brick, stone, tile, stucco, wood, etc. May be mixed with paint. National Hydrozo Co., 5234 St. Clair Ave., Cleveland 3, Ohio.

Paratex. Rubber-base paint insensitive to alkali, acids, salts, and chemicals, for exposed concrete, wood, steel. Truscon Laboratories, Inc., Caniff & Grand Trunk R.R., Detroit 12, Mich.

PLUMBING EQUIPMENT

Shower Base. Solid aluminum alloy shower base cast in one piece. Slip-proof crackle enamel finish, various colors. Northrop Aircraft, Inc., Northrop Field, Hawthorne, Calif.

Shower Stalls. Compartments made of "Porcena" (porcelain-on-steel), manufactured to modular sizes; with or without dressing rooms. Sanymetal Products Co., Inc., 1705 Urbana Road, Cleveland 12, Ohio.

Low-Type Greaseptor. Low-slung grease interceptor for sinks where ordinary grease interceptors are too high: chamber removable for easy cleaning; cast iron or stainless steel. J. A. Zurn Mfg. Co., Erie, Pa.

STRUCTURAL MATERIALS

"Modern Crete." Fireproof, lightweight concrete-base material with smooth, weather-resistant surface; sound-resistant, nailable, can be sawed, termite-proof, thermal insulating properties; can also be factory-shaped; available in colors. Schaaf Pre-Cast Concrete Co., G-5522 No. Dort Highway, Flint, Mich.

Trussed Rafter. Has only four basic members plus two scabs, can be fabricated at site or in shop, ring grooves and bolt holes cut in one operation, saves up to 400 ft of lumber in 2-bedroom house. Rafter design available on request from Timber Engineering Co., 1319 18th St., N. W., Washington 6, D. C.

OPEN-WEB STEEL JOISTS: I

BUILDING PRODUCTS FACTS • October 1946 • Serial No. 25
Progressive Architecture

Information contained in this Building Products Facts sheet was obtained from the Steel Joist Institute, 3709 24th St., N. E., Washington 18, D. C., for which Frank Burton is consulting engineer. Open-web steel joists are lightweight steel trusses designed for use in light-occupancy buildings to support floor and roof panels between main supporting beams, girders, trusses, and walls.

Manufacture. In 1855 the first steel joists were used in building the State of New York Bank in New York City. These were made of steel webs and flanges riveted together. In 1908 quantity production of pressed steel joists was started. They were made of 16-ga sheets pressed into the form of channels and welded back-to-back, giving the appearance of light I-beam sections. Later a section consisting of a strip steel web and four light angles, assembled by spot welds into the form of a girder, made its appearance.

By 1920 the idea had gained considerable acceptance; however, the metal was extremely thin, end connections were expensive, and erection costs were high due to the tendency of joists to tip over. Solid webs offered no practical method of installing pipes and conduits within the depth of the floor construction. These objections led to the development of open-web joists.

In 1923 the first open-web joist appeared. It was produced in the form of a Warren truss in which the chords consisted of two round bars and the web of a single continuous bent bar, arc-welded. Chords and webs were of considerably sturdier sections than those found in pressed steel joists, with little or no increase in the total weight of material. Bearing ends were made 2½" deep in all cases by bending up the bottom chords near the supports; the joists were thereby made inherently stable against overturning, which resulted in more speedy and less costly erection. (While this type of end bearing is still considered standard, some manufacturers are now producing joists of other end designs.) Open-web steel joists permit passage of pipes and conduits through the openings in all directions, thus providing concealed installations.

Design of open-web joists has been constantly developed since their first introduction. They are now made by expanding and forming one piece of metal, and by assembling several pieces of metal by welding. Some manufacturers use fusion welding, some resistance welding. Joists of any manufacture certified by the Institute as complying with Steel Joist Institute Specifications can be used with complete safety. Wood nailer strips can be attached to open-web joists at the manufacturers' plants when required.

HANDLING AND ERECTION

Unloading. Steel joists may be seriously damaged by careless handling. They should not be thrown over sides of car or off trucks. A crane may advantageously be used for unloading, but if such use is contemplated the seller should be notified of the fact so that joists can be properly blocked during loading. If a crane is used it should be provided with twin chains supporting joists at two points some distance apart; and joists should be handled carefully, not jerked or dropped.

Hauling. Joists should not be allowed to overhang end of truck or truck and trailer by more than a few feet, otherwise the joists may be permanently bent. In loading, cross timbers should be inserted at intervals to keep piles true.

Piling at job. Joists, accessories, and lath should be stored at job in such a manner that the lower portion of the piles is not affected by ground dampness. Piles should not be so high as to cause bending in members near the bottom. Piles should be protected from the weather.

Setting. The first joists in any run should be placed not more than 4" clear of the end wall. The others should be spaced accurately, measuring from the first joist. Joists should be laid upon supports, not thrown on. Joists supported on masonry walls should be bedded in mortar; failure to bed joists properly often results in excessive vibration in the finished floor. If rigid bridging is used in which the diagonals act in both tension and compression, it should be installed before wall anchors, beam anchors, or other specified means of attachment are applied. If beam or tension bridging is used, it should be installed after joists are permanently anchored to the supports. This should always be done before performing any other work which requires support from the joists.

Decking. No temporary decking or runways (except planks used by workmen in installing bridging) should be placed on floors until all bridging is in place. Two-inch (nominal) planks may then be provided for temporary decks and runways, and spreader boards can be provided for dumping concrete buggies.

Construction loads. Steel joists are designed to support safely a concentrated load of 800 lb on any one panel point or any joist, but only after bridging is in place. Moving or vibrating concentrated loads exceeding 400 lb should be distributed by means of temporary blocking to two or more joists. Any stationary construction load exceeding the designed floor load, or any moving construction load exceeding one-half of this amount, must be distributed by means of timbers to walls, girders, or columns. Designed live load of most light-occupancy buildings (hotels, apartments, schools) is usually about 50 lb per sq ft, which is equal to a 6" layer of sand, gravel, or brick. Mixing concrete on roofs or upper floors is not feasible unless mixer and materials are supported on an adequate temporary timber platform resting on structural beams or girders, or on masonry bearing walls.

Centering. Floor lath or other centering should be securely attached to top of joists. These attachments perform a very important function in the finished construction. Whenever any centering material is used which transmits a lateral pull to joists during concreting, it is important that temporary blocking be placed snugly between the joists near the ends, as well as at points intermediate between lines of bridging, to prevent lateral bending of joists. Floor lath should be lapped not less than 1½" beyond center of supporting joists at ends of sheets and should be securely wired to next sheet. At supports lath should be cut on each side of joist and bent down to inner line of wall or girder, permitting concrete to seal ends of joists. Failure to seal ends of joists properly is an important factor contributing to vibration in finished floors. Continuously sealed ends of joists over beams and interior partitions are also of great value in preventing sound transmission.

Reinforcing for top slab. To be effective, reinforcing should be supported well above bottom of slab, especially over joists. If no chairs are supplied for this purpose, pieces of tile should be inserted under reinforcing at intervals. When concrete decks are not covered with wood top floors, cracks parallel to and above the joists are almost certain to be seen in the finished work if the reinforcing at right angles to joists is not above the center of the concrete slab over the joists.

Wood sleepers. When wood sleepers are provided, they must be supported at least one full inch above the top of joists to provide a layer of concrete fire-proofing under the sleeper.

Placing concrete. Concrete should be placed in strips at right angles to run of joists. Placing in strips parallel to joists results in severe lateral stresses, which are likely to pull joists out of place and lead to construction accidents.

Mechanical trades. Plumbers, electricians, and others should not attempt to move joists which interfere with their pipes or conduits, but should request the general contractor to have moved such joists as unduly hamper their work. Cutting of web members or parts of chord sections from open-web joists must not be permitted under any circumstances.

Sources of supply. The following list is reasonably complete, though it cannot be guaranteed to be absolutely so. Omission of a firm name implies no fault with the product or the manufacturer.

Manufacturers Complying with the Steel Joist Institute Specifications

BATES EXPANDED STEEL CORP.	East Chicago, Ind.
BETHLEHEM STEEL CO.	Bethlehem, Pa.
CECO STEEL PRODUCTS CORP.	Chicago, Ill.
COLORADO BUILDERS SUPPLY CO.	Denver, Col.
CONCRETE STEEL CO.	New York, N. Y.
GABRIEL STEEL CO.	Detroit, Mich.
LACLEDE STEEL CO.	St. Louis, Mo.
MACOMBER, INC.	Canton, Ohio
SHEFFIELD STEEL CORP.	Kansas City, Mo.
TRUSCON STEEL CO.	Youngstown, Ohio

Properties and Allowable Total Loads in Pounds per Linear Foot of

STEEL JOIST INSTITUTE STANDARD

Open Web Steel Joists

In accordance with Simplified Practice Recommendation No. R 94-30 of the Bureau of Standards, U. S. Dept. of Commerce.

Adopted by Steel Joist Institute Aug. 20, 1929. Effective Jan. 1, 1930

Steel Joist Institute Designation	SJ81	SJ82	SJ102	SJ103	SJ104	SJ123	SJ124	SJ125	SJ126	SJ145	SJ146	*SJ147	SJ166	*SJ167	Steel Joist Institute Designation
Depth in Inches	8	8	10	10	10	12	12	12	12	14	14	14	16	16	Depth in Inches
Resisting Moment In Inch Pounds	29,500	52,500	63,000	82,000	100,000	92,000	115,000	142,000	175,000	156,000	205,000	246,000	232,000	281,000	Resisting Moment In Inch Pounds
Maximum End Reaction In Pounds	1600	1900	1900	1950	2200	2200	2300	2500	2700	2900	3100	3400	3200	3600	Maximum End Reaction In Pounds
Span 4 Feet	800														Span 4 Feet
5	640														5
6	530														6
7	402														7
8	308														8
9	243														9
10	197	350													10
11	162	289													11
12	137	243	292												12
13	116	207	248												13
14	100	178	214												14
15	87	155	187	243		272									15
16	77	137	164	213	260	240									16
17			145	189	230	212									17
18			130	169	205	189	236								18
19			116	151	184	170	212			288					19
20			105	137	167	153	192	237		260					20
21						139	174	215		236					21
22						127	158	196	241	215					22
23						116	145	179	221	197	258				23
24						106	133	164	202	180	237				24
25										166	218	262	247		25
26										154	202	243	229		26
27										143	187	225	212	257	27
28										133	174	209	197	239	28
29													184	223	29
30													172	208	30
31													161	195	31
32													151	183	32

*Note. These Joists are not produced by all Manufacturers.

NOTES:

All steel joists, other than those having a nailing strip attached, manufactured by members of the Steel Joist Institute, are made in accordance with this table. Joists longer than those shown are not manufactured under Steel Joist Institute sponsorship. Shorter joists are made when it is not practical to use shallow joists for shorter spans. In computing carrying capacity of shorter joists, end reaction should be divided by half the span to determine safe load per linear foot. Steel Joist Institute designation; first figure or first two figures give depth in inches; last figure designates chord sections. Larger numbers designate larger chord sections. Web systems of joists vary in details according to the manufacturer, but in each case are safe for designated maximum end reaction, and web system is designed to support a uniformly distributed load equal to twice the maximum end reaction. Depth as given is over-all depth with permissible variation not over ¼".

BUILDING PRODUCT FACTS

Unrivaled Sunlight Control for Executive Offices

FOR executive offices at this attractive plant of Wallace and Tiernan, ALUMAROLL roll-up aluminum awnings provide unequaled protection from the glare and heat of summer's sun. Because these awnings of 100% aluminum reflect the heat of the sun, the window areas are as much as 15° cooler than those shielded by canvas or other materials. This feature reduces the summer cooling load on the air conditioning system. Because the awnings roll up like other awnings, any degree of shade can be obtained.

ALUMAROLL awnings are storm-proof and should be left on the building the year 'round. No storage or maintenance problem is involved and because these awnings will not rot, rust, tear, burn or mildew, they will last as long as the building on which they are installed.

Unique construction prevents sag or rattling and a baked-on aluminum enamel finish can be secured to harmonize with any architectural treatment.

In addition to window installations, ALUMAROLL awnings may be used for sunlight and weather protection at loading platforms, entrances, or wherever such shielding is needed.

Do as others have done—install ALUMAROLL awnings and forget them. The first cost is the only cost.

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It tells more about Alumaroll awnings and gives complete directions for determining the style, type, and size for most installations.

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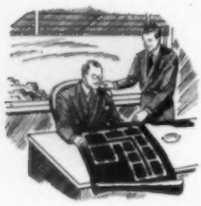
DISTRIBUTORS AND INSTALLERS IN PRINCIPAL CITIES

Will your new school provide for change?

Here's a proved system of interior construction that offers complete flexibility to meet ever-changing educational needs



THINK OF IT! . . . the entire interior of a school completely flexible, yet having all the necessary qualities of permanent and solid construction!

Think what that means in terms of economy alone . . . when you want to expand or subdivide units, or convert a building from academic to vocational, or from grade school to junior high!

Three Johns-Manville materials make this revolutionary development possible . . . permit Unit Construction of walls, ceilings, and floors under a single specification, a single manufacturer's responsibility:

1. **Movable Walls . . .** 100% salvageable. Made of Transite sheets—difficult to mar, highly resistant to shock and abuse.
2. **Acoustical Ceilings . . .** reduce noise, increase classroom efficiency. Demountable units can be taken down and relocated as desired.
3. **Colorful, Resilient Floors . . .** quiet to walk on; easy to clean; stand up under heavy traffic. Small units permit easy extension of the floor to meet changing conditions.

The constituent parts of Johns-Manville Unit Construction are built to last as an integral part of the structure. And they're so much easier to keep clean that they bring maintenance expense way down. Their modern attractiveness inspires genuine pride on the part of students, teachers, and parents.

Before planning a new school or converting an old one, write for our brochure describing this important step forward in school design. Johns-Manville, P. O. Box 290, New York 16, N. Y.

Because of the unprecedented demand for Johns-Manville Building Materials, there may be times when we cannot make immediate delivery of the J-M products you need. We therefore urge you to anticipate your requirements as far in advance as possible.

With Johns-Manville Walls, Ceilings, Floors, you can keep expanding, converting, or subdividing schoolroom units as often as conditions require

1. ACOUSTICAL CEILINGS—Important factor in helping to overcome the handicap of distracting noise, Johns-Manville Acoustical Ceilings are beneficial both to teacher and student alike. They give the desired degree of quiet for effective teaching, eliminate frequent causes of nervousness, and are proved aids to concentration. An exclusive Johns-Manville patented construction system permits interchangeability of flush-type fluorescent lighting and acoustical ceiling units, which are readily demountable.

2. MOVABLE WALLS—The keystone of flexibility in Unit Construction is the J-M Transite Wall. It can be disassembled and relocated as educational needs require. One-unit rooms, for instance, can be speedily converted into two-unit rooms, or vice versa. Made of fireproof asbestos and cement, practically indestructible materials, the movable panels are used to form rigid, double-faced partitions, 4″ thick. Can also be used to finish the interior of outside walls. Transite base is easily removable for access to wiring, etc.

3. COLORFUL, RESILIENT FLOORS—J-M Asphalt Tile Flooring completes the Unit Construction System. Made of asbestos and asphalt, the units withstand the kind of hard wear and abuse that must be expected in any school building. Not only durable, J-M Asphalt Tile Floors are comfortable and quiet underfoot, reducing the disturbing effects of noisy footsteps in corridors, gymnasiums, etc. Individual units permit easy alterations or extension of patterns. Made in a wide variety of plain and marbleized colors.

Incredible as it may seem, this beautiful and solidly built Vocational Room can easily be expanded, subdivided, or converted to an ordinary classroom—thanks to the flexibility of Johns-Manville Unit Construction. Note the projection-free lines of the movable, hard-to-mar Transite Walls. And note the Acoustical Ceiling (with fluorescent lighting), which cuts down noise and reverberations that would otherwise distract students and teachers in other rooms. The colorful floor is Asphalt Tile, easy to clean, highly resistant to scuffing, yet resilient underfoot.

JOHNS-MANVILLE
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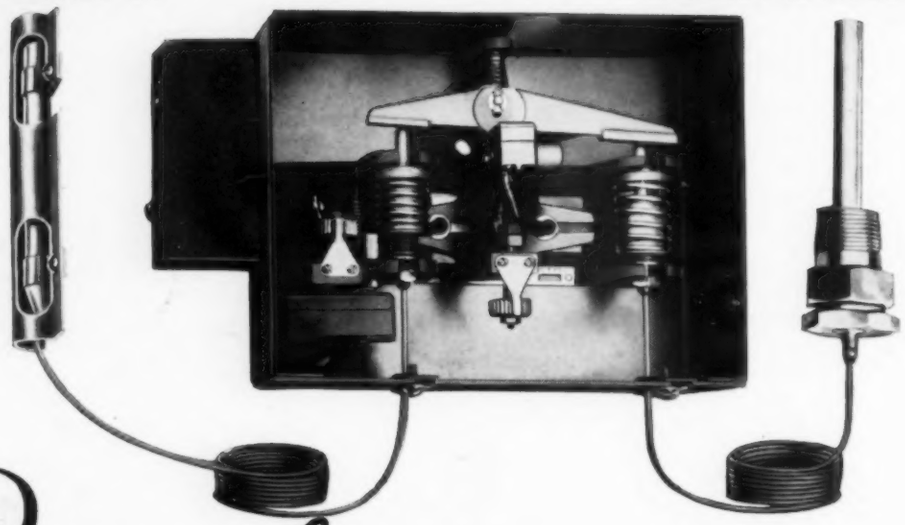
PRODUCTS

Johns-Manville Unit Construction *for schools*

ASPHALT TILE FLOORS
MOVABLE TRANSITE WALLS
ACOUSTICAL CEILINGS

THE FIRST FULLY AUTOMATIC CONTROL

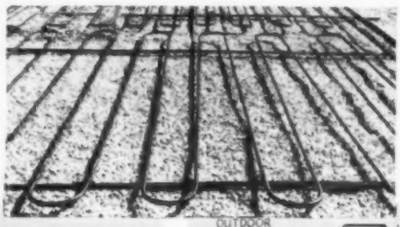


Designed ESPECIALLY FOR PANEL HEATING WITH CONTINUOUS CIRCULATION

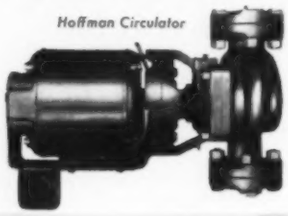
The relatively low temperatures required by Radiant Panels using forced hot water as the heating medium *call for a control system capable of precise and continuous modulation.* In the 90 Series Controller, Hoffman designers have achieved an engineering masterpiece—a fully automatic "mechanical brain" which directs the operation of the subordinate controls. *It has proved its merit in thousands of forced hot water systems now in operation.*

The Hoffman 90 Series Controller, activated by its Outdoor and Water Temperature Bulbs, smoothly raises or lowers the temperature of the *continuously circulating* water to meet changes in the need for heat. Thus the heat supply to the panels is always exactly equalized with the building heat loss. The diagrams below show the basic operating principles of this miracle Controller—for complete information, write for literature.

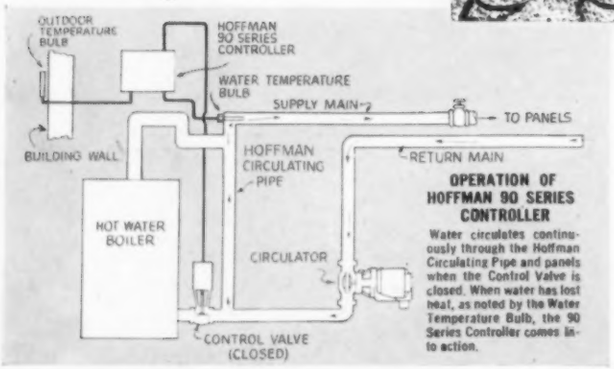
Hoffman Control Valve



Radiant panels require the smooth temperature modulation provided by the Hoffman 90 Series Controller

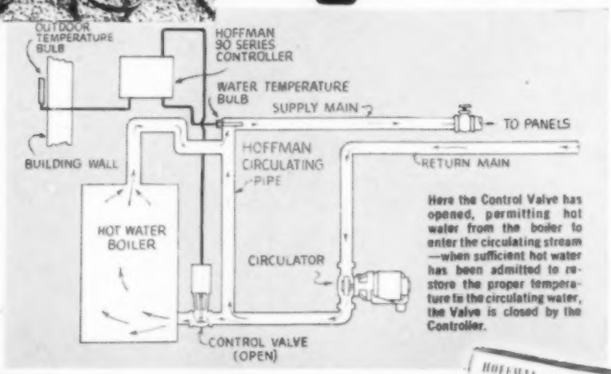


Hoffman Circulator



OPERATION OF HOFFMAN 90 SERIES CONTROLLER

Water circulates continuously through the Hoffman Circulating Pipe and panels when the Control Valve is closed. When water has lost heat, as noted by the Water Temperature Bulb, the 90 Series Controller comes into action.

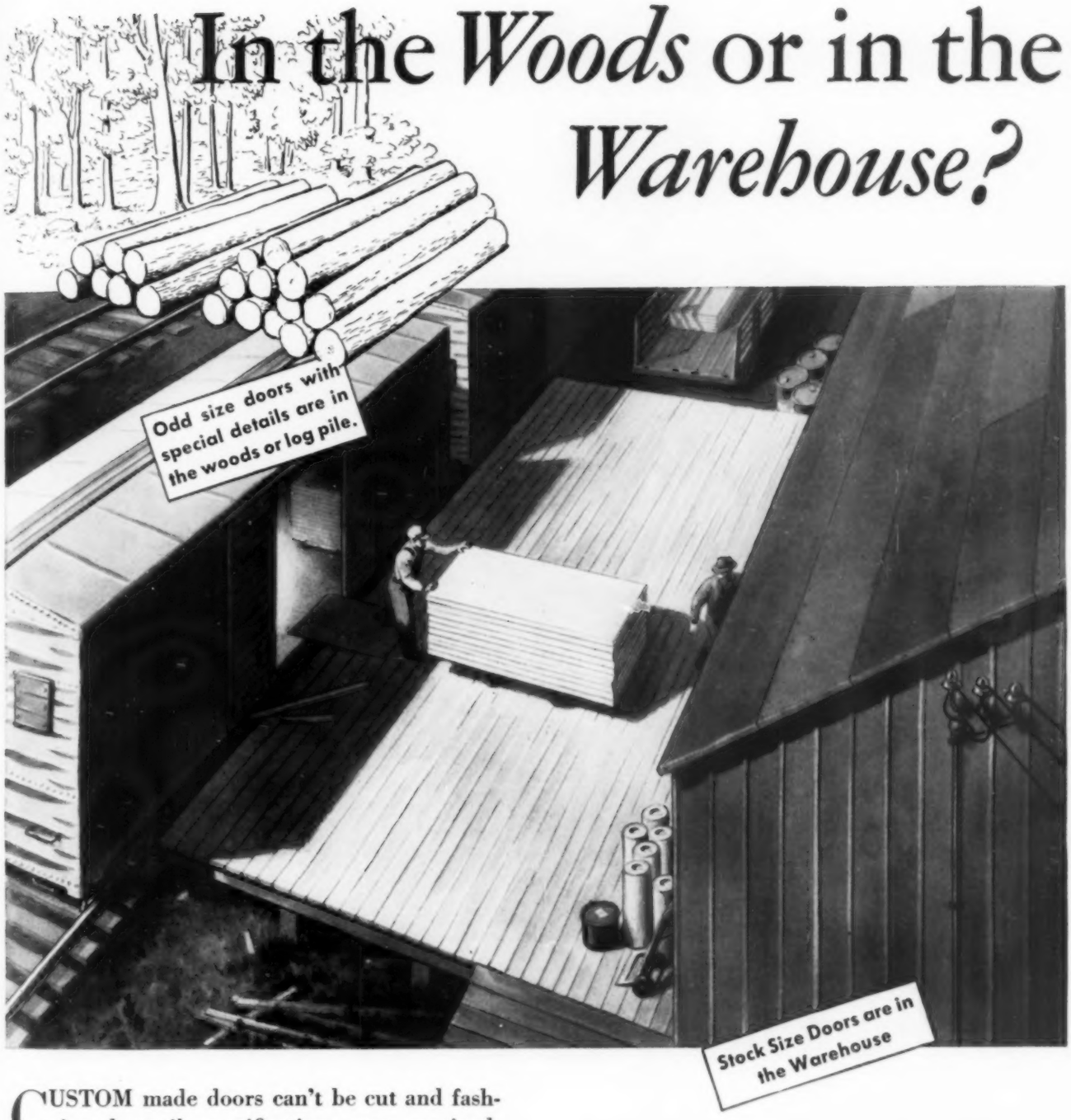


Here the Control Valve has opened, permitting hot water from the boiler to enter the circulating stream—when sufficient hot water has been admitted to restore the proper temperature to the circulating water, the Valve is closed by the Controller.

HOFFMAN Hot Water CONTROLLED HEAT

Hoffman Specialty Co., Dept. PP-10, 1001 York St., Indianapolis. Famous for Hoffman Valves, Traps, Vacuum and Condensation Pumps, Forced Hot Water Heating Systems.

In the *Woods* or in the *Warehouse?*



CUSTOM made doors can't be cut and fashioned until specifications are received.

Odd sizes and details slow down production, require additional labor — waste materials. Stock sizes on the other hand permit maximum continuous production, make the most use of man-hours and machines — provide stocks at our warehouse — ready where you want them, when you want them . . . Since the call today is for production and more production Roddis is limiting itself to stock sizes both in doors and plywood. This policy means more Roddiscraft doors and more Roddiscraft plywood for our customers — a continuation of our 55 year old policy of giving our customers what they want.

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DETROIT, MICH., 11855 E. Jefferson Ave.
KANSAS CITY 8, MO., 2729 Southwest Blvd.
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LONG ISLAND CITY, N. Y., Review & Greenpoint Ave.
MARSHFIELD, WISCONSIN
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Homeowners enjoy this "new

Entire family gets 100% "use value" from Servel All-Year Gas Air Conditioning

You can specify Servel *All-Year* Gas Air Conditioning for your new homes in full confidence that your clients will receive maximum value from their investment in it. For, unlike many features in the modern home which are used only intermittently . . . extra bathroom, guest room, laundry . . . every member of the family enjoys Servel's "new quality of living" *every day in the year.*

In summer the Servel unit provides cleaned, refreshingly cooled, delightfully dehumidified air. In winter it circulates clean, draft-free, properly humidified heat. Through every season, the homeowner can select just the climate he wants indoors by simply touching the central Selectrol control.

As proof of the high investment value of Servel *All-Year* Gas Air Conditioning, mortgage loan officers all over the country have indicated their willingness to extend longer, more favorable terms on homes equipped with it. They feel that the "new quality of living" it provides will keep homes modern longer, thus maintaining their resale value on a higher plane for a longer period of time.

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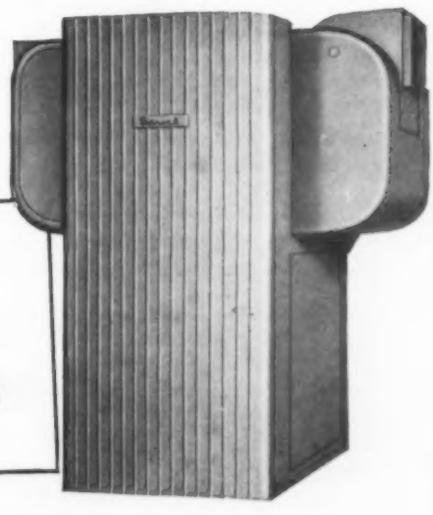
"Cape Cod—'46 Model," one of a series in *Good Housekeeping's* "Homes America Wants." Royal Barry Wills, Boston, Architect.

quality of living" the year round

TRIED . . . PROVED . . . SUCCESSFUL

(From Boston to San Diego . . . From Bismarck to Miami)

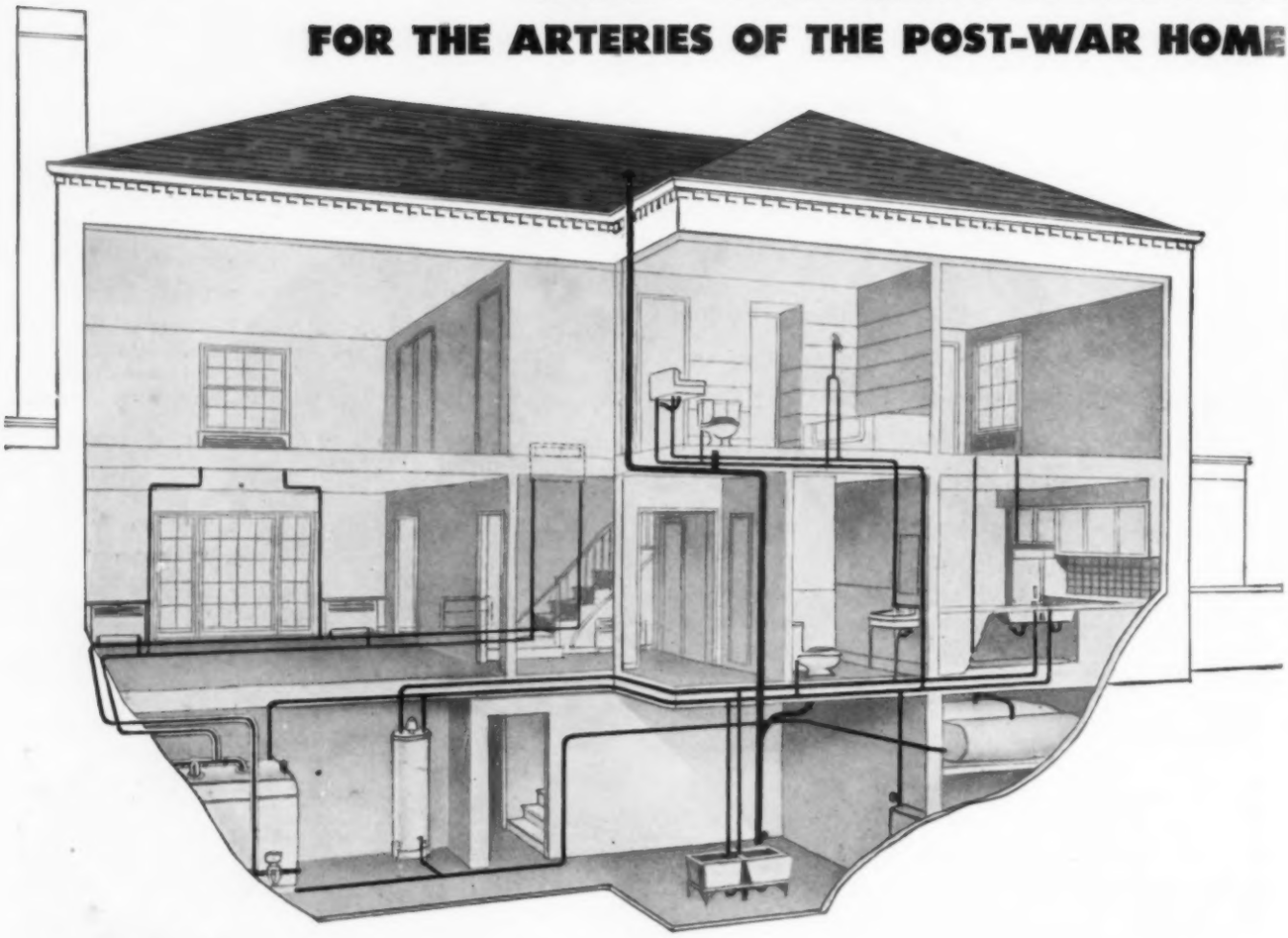
The Servel *All-Year* Gas Air Conditioner is already operating successfully in hundreds of installations from coast to coast. Some have been running for more than four years. The equipment is tried, tested . . . and *approved* by users everywhere.



Servel

***All-Year* GAS AIR CONDITIONER**

SPECIFY STREAMLINE COPPER PIPE FOR THE ARTERIES OF THE POST-WAR HOME



When specifying or installing a plumbing or heating piping system, the following leading questions concerning the arteries of the building should be of paramount importance. You should be able to answer them with a positive "yes".

Will the piping system continue to give peak service year after year for the life of the building?

Will the modern fixtures in the bathroom, kitchen and laundry be adequately supplied with a full flow of water?

Will the radiators maintain their maximum efficiency in heating every room in the house?

Will it be free from leaks, particularly in concealed places behind the walls and between floors and ceilings?

Will it be forever free from internal clogging due to rust?

Will it actually add to to resale value of the property?

If the answer to any of these questions is NO —then you are not installing the piping system that will give you the utmost for the money expended, but if you wish to answer all these questions with a positive YES—then your choice will be genuine STREAMLINE Copper Pipe and STREAMLINE Fittings and you will specify and accept nothing else.

A STREAMLINE piping system offers the greatest possible resistance to rust and leaking water. It provides a lifetime, trouble-free, plumbing or heating system that, with the possible exception of extremely abnormal water conditions, will outlast the building in which it is installed. Plan on specifying and installing STREAMLINE Copper Pipe and Fittings for your postwar construction—or for replacement.

STREAMLINE
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Most of the 35,000,000 doors made by Wheeler Osgood in the past 57 years have gone into the homes of America . . .

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SAN FRANCISCO OFFICE	3045 19th Street, San Francisco, California	Phone: Valencia 2241
LOS ANGELES OFFICE	P. O. Box 7685 Del Valle Station, Los Angeles 15, Calif.	Phone: Vandike 6326
TACOMA OFFICE	1216 St. Paul Avenue, Tacoma 1, Washington	Phone: Main 8101

REVIEWS

VISIONARY TO THE POINT OF AUDACITY

By Rita Davidson

We Must Go On. A Study of Planned Reconstruction and Housing. F. O. Barnett, W. O. Burt, and F. Heath. The Book Depot, 288 Little Collins Street, Melbourne, C.I. Australia, 1944. 118 pp., illus. $1.00

Wanted! A PLAN! Report submitted by the Royal Australian Institute of Architects. 194x. 20 pp.

If two recent planning publications are at all representative, Australia is progressive in more than political practices. But originality is lacking and it may be some years before Australia can serve as a planning laboratory in the same sense that she has functioned politically (introducing the Australian ballot, for example). Town and country planning is too new there to foster much new thinking although the boldness of these two reports indicates Australia may be among the first on implementation.

We Must Go On was written "to develop a public conscience on the need for planning." The authors, apparently, have carefully perused the planning literature of Europe (England and Russia, particularly) and the United States. Their summary indicates that planning can have a soul as well as be a technique. The State of Victoria is the focus for their plan making. They have proceeded from a survey of resources to a theory of industrial location and finally to the provision of housing within a community framework. The scope illustrates that "the expert in housing and town planning must be able to realize the importance to the housewife of the height of the kitchen sink; and at the same time to know how big a population is necessary to maintain a university or a theater."

Lewis Mumford who deplored the lack of "urban statesmanship" in the County of London Plan would feel little grievance here. In fact, in their denunciation of megalopolis, their stress on regional balance and the desirability of garden cities, consciously or otherwise, the authors demonstrate a deep understanding of Mumford's criticisms.

The basic premise observed by Barnett, Heath, and Burt, is that the distribution of the urban population in Australia is unbalanced. They favor a dispersion from Melbourne by the creation of several strong regional centers. They recognize that the existence of natural resources, the transportation system, and the water supply (one of Australia's chief developmental limitations) will determine largely how and where these cities can be placed. They visualize self-contained garden communities of 100,000 to 200,000 persons, organized on the neighborhood unit principle and surrounded by a five-mile to ten-mile agricultural greenbelt. State controls over industrial location and land use would serve to keep the population and areas in harmony.

The humaneness of the report is revealed equally in the responsibilities placed on society, for welfare and social services and economic distribution, as well as the more specific aspects of community organization. The treatment of social problems is outstanding. They propose, for instance, that one carefully planned meeting place could serve all spiritual purposes, so that the church could really become the natural

(Continued on page 110)

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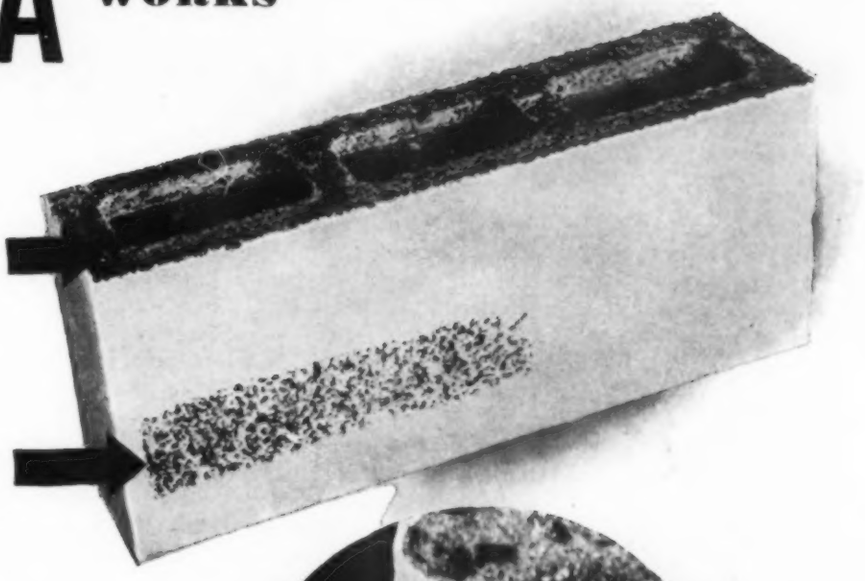
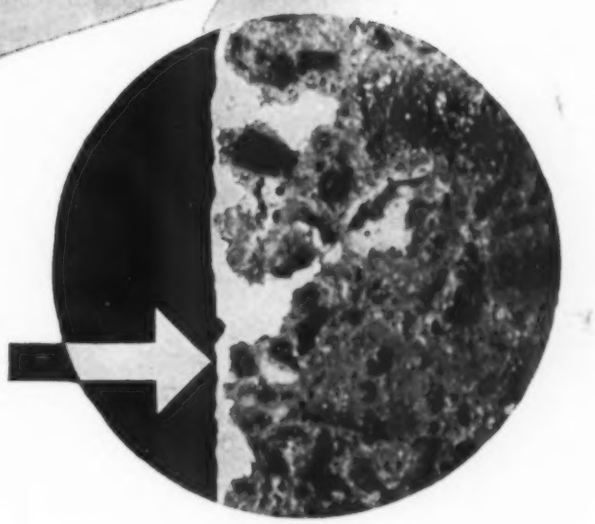


1 Here is an Aquellized concrete masonry unit filled with water. Naturally, there is no leakage.

2 But what happens if the Aquella surface coating is scraped off? To answer that, we scraped away this portion, and there's still no leakage. This may be slightly puzzling until you study the photograph of the third step . . .



3 The enlargement of a small, sawed-away section of the above block, which shows the way Aquella penetrates to fill and close each microscopic pore of the surface. It is the filling of the pores—not essentially the surface coating—which stops the penetration of water.

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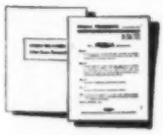

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REVIEWS

(Continued from page 108)

pivot of the community. Such a scheme would integrate the community spiritually as well as physically and is not as impractical as it may seem, for the war saw the acceptance of a Church Army Hut for all denominations. Thoughtful attention is given also to provision of garden communities for the aged, with communal facilities, and of well appointed hostels for single persons.

All this is no airy-fairy planner's dream. The authors are keenly aware of the factual accumulation which must precede their schemes. They realize the primary need for resource survey. Like the Soviet Union, and, more recently, the British (the United States continues in the middle ages here!), the Australians want to base their town siting upon industrial location factors, in turn founded on national resource surveys and analyses.

The R.A.I.A. Report is shorter and not quite as daring as *We Must Go On*. It places an unfortunate stress on the role of the architect in the reconstruction process by proposing that he (or the engineer) coordinate the work of the Territorial Planners (their appellation for planners now that they deal with regional and national planning as well as neighborhood, town and country planning). The very use of the word Territorial Planning reveals a failure to grasp the all-important distinction between physical planning on the one hand, and social and economic planning on the other. This stems possibly from their insistence that the physical planner or architect coordinate the territorial plans.

For all this, the Architectural Institute has grasped the fundamentals of planning so praiseworthy in the other Australian report; the need for a national planning agency, an over-all resources survey, decentralization of industry and population, and the neighborhood unit concept. In addition to the plea for planning, there is a good section on the building industry, codes, and standards.

AND HEROIC RESULTS

The Polish School of Architecture. 1942-1945. The University of Liverpool. Charles Birchall & Sons, Ltd., Liverpool. 248 pp., illus. 30 s.

A magnificent publication of a heroic educational undertaking, this book excites our admiration. With considerable optimism, the Polish School of Architecture, made up of refugee students and faculty, was revived at Liverpool in 1942. Close cooperation with that excellent architecture school proved productive. Facilities were shared, Polish

(Continued on page 112)

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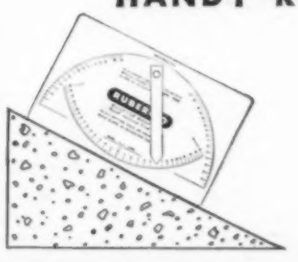

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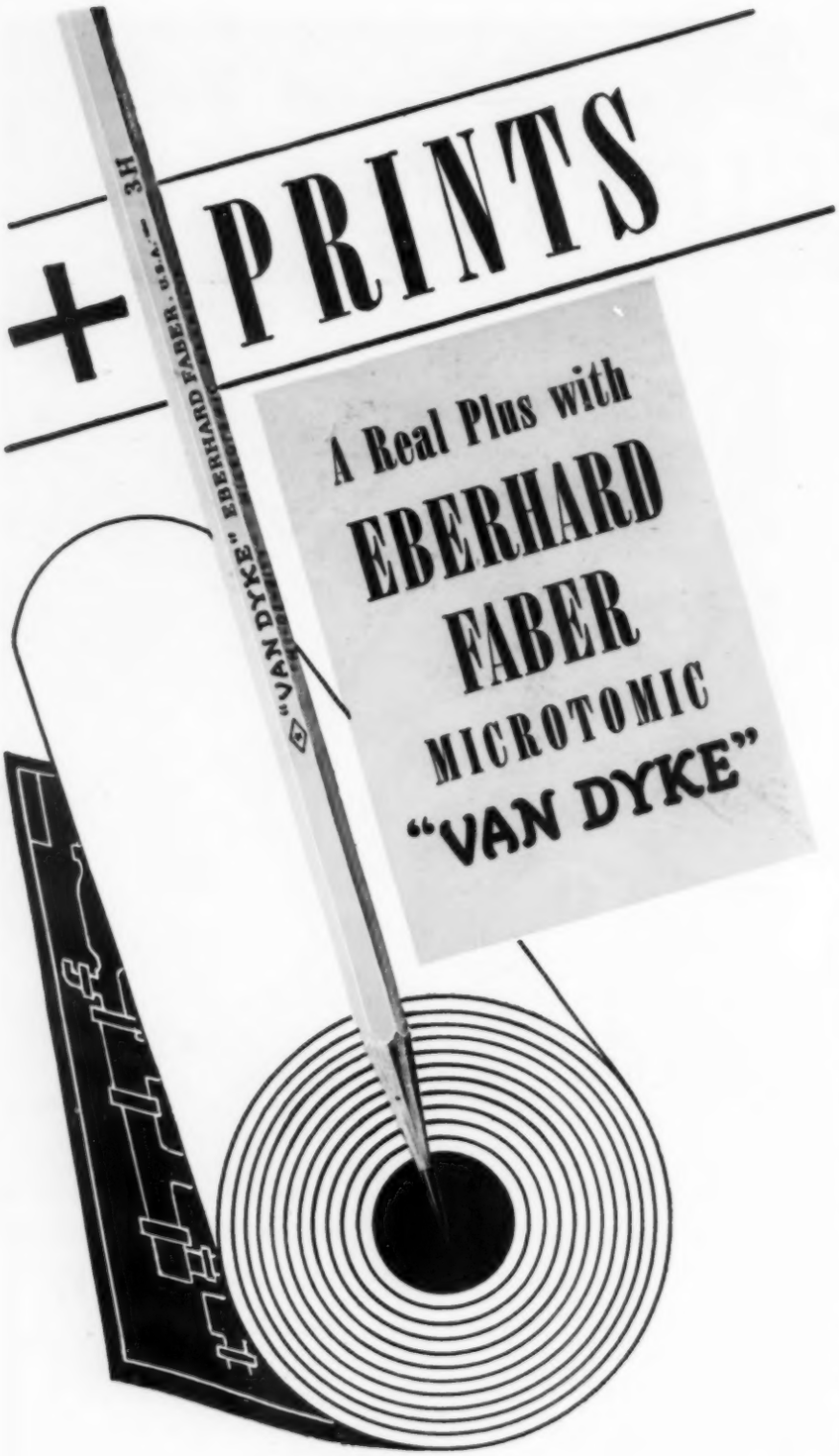

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REVIEWS

(Continued from page 110)

and English students took some of the same problems and were criticized by each other's faculties. This seems to have been mutually rewarding. The English faculty in several places in these pages expresses its admiration for the spirited work done by the polish students. In his introduction, Lionel Budden, the head of the Liverpool school, says, ". . . Polish students are still able to do what their contemporaries in other countries now find exceedingly difficult . . . to design easily and unselfconsciously in monumental terms."

Since the building materials, the climate, and methods of practice in Poland are considerably different from British conditions, supplementary work was given to the Polish student in Polish. Among these courses Polish traditions were emphatically stressed. The result, and a good one, is that national features recur on many pages. A characteristic element is a space shaped like a pair of parentheses ( ). This may be used for the plan of a church or for a vestibule. Historically, it comes from the Dominican church at Lwow. Another recurrent element is a baroque terminal feature for towers.

On the whole, the designs illustrated so fully and so well are like those produced by students in any progressive school today; international in style, boxy, simple, open. Students are always imitative: Swedish, French, and Swiss forms are seen here as in our own schools. The range of subjects studied includes dairies, factories, hospitals, town halls, city planning, and many residential schemes. The Poles are aware that their standards of domestic housing are low. Their average in 1930 was 2 people to each room, whereas in England, it was 0.85 people to a room. Horribly aggravated by sweeping destruction, the housing problem was, therefore, a recurrent design subject.

The curriculum seems to have been thorough. It was focused on the needs which would face Poland if the opportunity to rebuild was forthcoming, and hence serious and practical, and more remarkable, fresh, and imaginative as well. This book, which may have some value as a handbook for planning in Poland also is a ringing challenge to schools of architecture. Proud the school that can boast so many fine draftsmen or so many gifted designers.

All of us are in quest of a modern architecture that will be more than barely utilitarian. Hitler's excesses have made the screams of the eagle more grating than before; however, the successful use by the Polish School of elements from their past suggests that we might find help in a bolder use of our traditions without doing either a Williamsburg or a Royal Barry Wills.

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COMMERCIAL

Offices

Gateways to the Skies—ZAY SMITH, DESIGNER. United Airlines has adopted new streamlined and standardized ticket offices in major cities from coast-to-coast. Photos. (Aug. Buildings and Building Management, p. 15)

A Picture Trip Through a New Design Lab, Chicago, Ill.—BARTOLLUCI-WALDHEIM, ARCHITECTS. Drafting, testing, and display facilities were coordinated in remodeling this package design workroom. Photos, floor plans. (Aug. Buildings and Building Management, p. 31)

Shopping Centers

Community Shopping Centre, Sydney, Australia—EMIL SODERSTEN, ARCHITECT. Rendering. (May Building and Engineering, p. 32f)

Shopping Center, Rye, N. Y.—KETCHUM, GINA & SHARP, ARCHITECTS. A simple plan to revamp the business section of Rye by deflecting traffic and converting the shopping area into an island surrounded by tree-shaded, municipally-owned parking lots. Photos, renderings, maps. (Aug. The Architectural Forum, p. 76)

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Stores

Symphonized Children's Store, Brooklyn, N. Y.—MORRIS LAPIDUS, ARCHITECT. Subtle changes of color and light and considerable diversity help to create a "symphonic progression" from layettes to 'teenage departments in this store designed from a metamorphic angle. Photos, floor plans. (Aug. Architectural Record, p. 81)

Baroque for Shoe Selling, New York City—MORRIS LAPIDUS, ARCHITECT. A modern free-flowing plan interpreted in Baroque as a solution to the ladies' shoe merchandising problem. Photos, floor plans. (Aug. Architectural Record, p. 89)

Showplace for Character Shoes, New York City—MORRIS LAPIDUS, ARCHITECT. In a restrained setting, the architect uses to good effect his devices of seating with cantilevered arms and continuous bulkhead beneath, individualized display cases, and convenient stock access. Photos, floor plans. (Aug. Architectural Record, p. 92)

The Cantoni Bookshop—B.B.P.R., ARCHITECTS. Standard metal bookshelves with movable shelves are so placed as to form a big room on the side of the shop windows and a small one at the back to be used as an office in this reconstructed shop. Photos, rendering, floor plans. (June Domus, p. 26)

Proposed Branch Department Store, St. Louis, Mo.—HARRIS ARMSTRONG, ARCHITECT. Ingenious use of a sloping site results in entrances at three levels (upper-streetfront, lower, and mezzanine), nicely separating the different types of circulation in this forward-looking, flexible design. Model photos, section, floor plans. (Aug. Progressive Architecture, p. 45)

Inexpensive Design for Specialty Shop, New Rochelle, N. Y.—MARIE FROMMER, ARCHITECT. A narrow deep store becomes an effective shop on a limited budget and wise economizing. Photo, floor plans, selected details. (Aug. Progressive Architecture, p. 73)

Cases, Specialty Shop, New Rochelle, N. Y.—MARIE FROMMER, ARCHITECT. Photo, selected details. (Aug. Progressive Architecture, p. 75)

EDUCATION

Schools

The First Postwar Permanent Schools, England—HOWARD V. LOBB, ARCHITECT. The basis of construction used in the three schools shown here is that recommended by the R.I.B.A. School Design and Construction Committee, over the Ministry of Education's proposal to use hutments. Photos, renderings, floor plans. construction details. (July Journal of the R.I.B.A., p. 377)

Blueprints for a Modern School Plant, Viroqua High School, Viroqua, Wis.—WEILER & STRANG, ARCHITECTS. A new building containing grade and junior high facilities is to be built in place of several outdated schools, with communal facilities and a corridor to the existing high school across the street placed at the juncture of two wings. Layouts, floor plans. (Aug. The Nation's Schools, p. 34)

Suburban Elementary School of Distinction, Grove City, Ohio—WALKER, NORWICK & TEMPLIN, ARCHITECTS. Rendering, floor plans. (Aug. The Nation's Schools, p. 37)

Every Detail Carefully Thought Out, Union, N. J.—FRED A. ELSASSER, ARCHITECT. An addition to the existing high school is to be built to house a total of 1800 pupils. Georgian in architecture to harmonize with the old structure built 20 years ago. Rendering, floor plans. (Aug. The Nation's Schools, p. 38)

(Continued on page 116)

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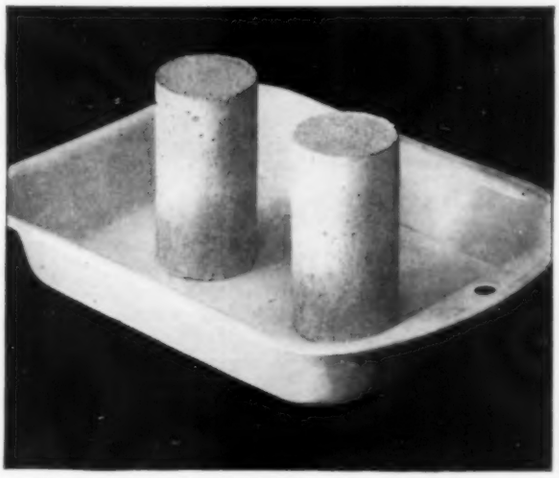

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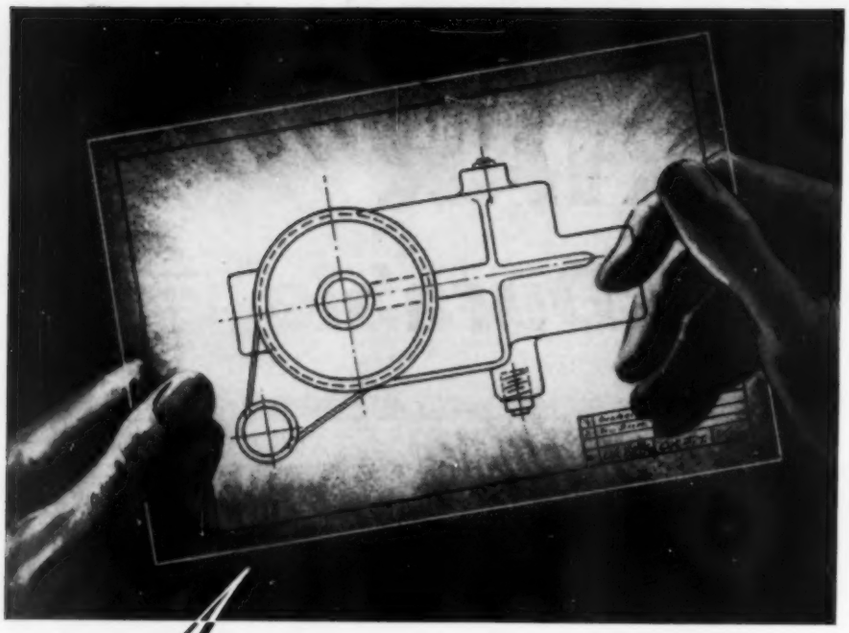

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GUIDE

(Continued from page 114)

ENTERTAINMENT

Art Gallery

A Distinctive Art Gallery in Conventional Store Space, Chicago, Ill.—HARPER RICHARDS, DESIGNER. Display rooms for the Associated American Artists, with special emphasis placed on deep warm color tones and concealed directional lighting. Photos. (Aug. Buildings and Building Management, p. 26)

Radio Studios

Copenhagen Broadcasting Building—VILHELM LAURITZEN, ARCHITECT. Chiefly of concrete construction, this modern building includes an office block, studios, and 1200-seat concert hall, with roof gardens laid out atop the studios, the soil of which acts as protection against noise from the air. Photos, site and floor plans. (July The Architectural Review, p. 7)

HEALTH

Hospitals

An Advanced Small-City Hospital, Waterloo, Iowa—SKIDMORE, OWINGS & MERRILL, ARCHITECTS. A project for a general hospital to be built on the "offset corridor" scheme, with careful attention paid to traffic throughout the building, avoidance of an "institutional" atmosphere, and provisions for future expansion. Model photos, sketches, floor and plot plans. (Aug. Architectural Record, p. 70)

Heidelberg Military Hospital, Melbourne, Australia—LEIGHTON IRWIN & CO., ARCHITECTS. Erected in purposeful stages, this hospital is an all-embracing center for the restoration of every type of war casualty. Photos, floor plans. (Aug. Architectural Record, p. 76)

Notes on Hospital Planning: Building Types Study—HOSPITAL FACILITIES SECTION, USPHS. A brief study of traffic flow in the general hospital, within departments and connection to traffic streams throughout the building, and "the thinking behind the plans" presented in previous Building Types Studies on the general hospital. Photos, sketches, charts. (Aug. Architectural Record, p. 101)

St. Margaret's Hospital, Darlinghurst, Sydney, Australia—GOVERNMENT ARCHITECT OF N.S.W. A modern 5-story obstetric ward block for 50 patients, with cantilever concrete balconies forming the main and striking feature of the facade. Photos, floor plans. (June Building and Engineering, p. 24)

Sylacauga Hospital, Sylacauga, Ala.—CHARLES H. McCAULEY, ARCHITECT. A T-shaped, multiple-story, 100-bed general hospital, the first in this country with all patients' rooms organized along the southern wall, completely separated from hospital noise and the traffic approaches to the building. Photos, floor plans. (Aug. Progressive Architecture, p. 48)

Designed for Premature Living, Johns Hopkins Hospital, Baltimore, Md. A special nursery unit designed exclusively for premature and immature babies, containing four nurseries, subdivided by means of glazed partitions into cubicles with equipment for one baby in each. Photos, floor plans. (Aug. The Modern Hospital, p. 49)

Nurses' Homes and Dorms

New Nurses' Quarters, Bega District Hospital—GOVERNMENT ARCHITECT OF N.S.W. Photos. (June Building and Engineering, p. 28)

HOUSING

Apartments

Garden Studio Apartments—RAPHAEL S. SORIANO, DESIGNER. A project of 30 3-room and 10 studio-type apartments of light steel, based on a module—the unit apartment; with enclosed gardens or garden terraces opening out from each apartment for outdoor living. Sketch, elevations, floor plans. (June Arts and Architecture, p. 30)

(Continued on page 118)

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GUIDE

(Continued from page 116)

Top Flats, Milan, Italy—ANTONIO LOMBARDINI, ARCHITECT. The architect's own apartment, reconditioned out of a damaged attic in an old house, with ample windows obtained by modifying the slope of the roof. Photos, floor plans. (June Domus, p. 9)

Cohabitation: A Flat in Two Rooms—PAOLO A. CHESSA, ARCHITECT. Two rooms out of a big flat made into a self-contained apartment, achieved by using cupboards and wardrobes as partitions or screens as well as for storage. Photos, floor plans, construction details. (June Domus, p. 22)

Flats in Copenhagen—V. KAASTRUP, ARCHITECT. An 8-block scheme of apartments for the lower income groups, each flat designed with a recessed balcony, separated from the next by a glazed dining alcove off the living room. Photos, floor plans. (The Architects' Journal for Aug. 8, p. 101)

Amster Yard—HAROLD F. STERNER, ARCHITECT. Reclaimed from urban neglect, the heart of a city block is converted into a handsome garden surrounded by professional offices and six apartments. Photos, sketch, floor plans. (Aug. The Architectural Forum, p. 64)

Two Apartment Houses in Wellington, N. Z.—GORDON F. WILSON, SUPERVISING ARCHITECT. Complete privacy, gained by locating apartment entrances along an open-air gallery, and good light and ventilation are key elements in these designs, erected under a vast government housing program, which set high standards for workers' quarters. Photos, floor plans. (Aug. The Architectural Forum, p. 69)

A Portfolio of Work by BERLA & ABEL, ARCHITECTS, **Washington, D. C.**—"Simplicity" best characterizes this firm's approach, as here seen in their apartment houses, row houses, and detached residences. Photos, floor plans. (Aug. The Architectural Forum, p. 82)

Hotels

Modern Hotels for Melbourne, Australia—HARRY A. NORRIS, ROBERT H. McINTYRE, ARCHITECTS. Renderings. (June Building and Engineering, p. 18)

Sylvan Lake Hotel, S. Dak.—HAROLD SPITZNAGEL, ARCHITECT. A resort hotel, built about 10 years ago, and a challenge to conventional regional expression at the time, using Indian motifs as design elements in both plan and decorative detail. Photos, floor plans. (Aug. Progressive Architecture, p. 53)

Housing Projects

A Cooperative Village, Little Switzerland, Knoxville, Tenn.—ALFRED AND JANE WEST CLAUSS, DESIGNERS. A development restricted to houses of contemporary design. Photos, floor plans. (June Domus, p. 4)

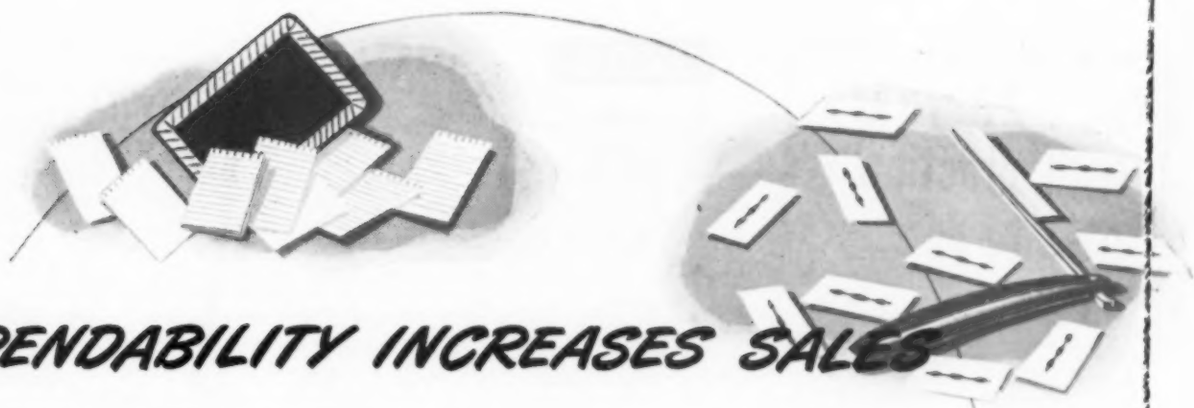
Gibraltar Housing Scheme—ROBERT ATKINSON, A. F. B. ANDERSON, ARCHITECTS. 730 apartments, to re-house 3,000 people, to be built on slopes overlooking Gibraltar Bay. Model photos, elevations, floor and plot plans. (July Journal of the R.I.B.A., p. 395)

Housing Project, Boro of Surbiton—F. R. S. YORKE, E. ROSENBERG, C. S. MARDALL, ARCHITECTS. Scheme for 350 houses and apartments, planned to suit the box-frame type of reinforced-concrete construction, with external walls and partitions carried on the slab. Rendering, floor and plot plans. (The Architects' Journal for Aug. 8, p. 104)

Residences

Details in Construction of 2 Popular Postwar British Homes: The Braithwaite House, the Orlit House. The Braithwaite system consists of standard steel frames to which external and internal cladding can be fixed with the aid of a patent spring clip; the Orlit system is based on a 6¾ square precast concrete post or stanchion which is assembled with precast beams to form a reinforced concrete monolithic frame. Photos. (July Architect and Engineer, p. 20)

(Continued on page 120)



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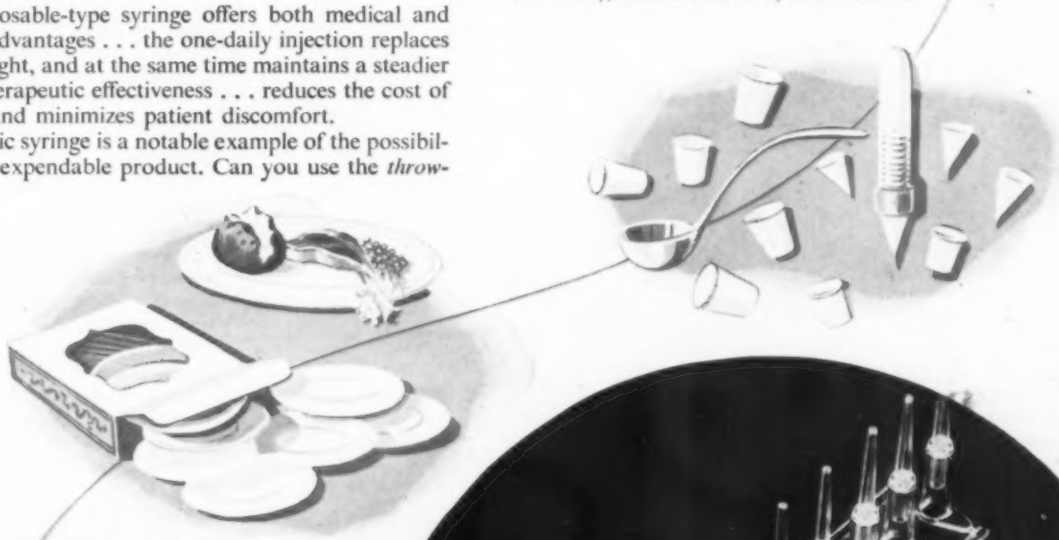
The plastic syringe is a notable example of the possibilities of the expendable product. Can you use the *throw-away-after-one-using* principle in your product planning? The Celanese Technical Staff welcomes your inquiries—is prepared to show how the high-speed moldability and all-around production economies of Lumarith recommend this Celanese* plastic for the expendable product. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y., producers of LUMARITH*, FORTICEL*, CELCON†, CELLULOID*, VIMLITE*.



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During the 1944-45 heating season a complete check-up and overhaul of all traps was begun by the Hotel Bellerive. Replacement of worn interiors with Webster Sylphon Attachments with new bellows and stainless steel valve piece and insert seat gives the hotel a better trap than the original.

Of course, this service record of Webster Equipment would not have been achieved without conscientious operation of the heating system at proper low pressures and competent supervision by the rental company. Proper selection of heating equipment *and proper use* — these are both essentials of heating economy.

Planning a 194? Hotel Bellerive?

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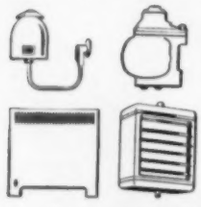

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Heating Systems

GUIDE

(Continued from page 118)

Small House, West Los Angeles, Calif.—MILTON A. CAUGHEY, ARCHITECT. A modern 2-floor house of natural redwood and stone, combining openness of space in some areas and a sharply contrasting enclosed effect in others. Renderings, floor plans. (June Arts and Architecture, p. 30)

Case Study House #16, Los Angeles, Calif.—RODNEY A. WALKER, DESIGNER. A design for a spacious home, on a limited budget, taking full advantage of the unusual natural site. Photos, elevations, floor plans. (June Arts and Architecture, p. 35)

Compact, but Uncrowded, San Mateo, Calif.—E. JAY MILLER, ARCHITECT. A Better Homes and Gardens 5-Star plan, 2 bedrooms, 1-floor, with modern open arrangement and a "touch of the traditional" in exterior finish. Photos, floor plans. (Aug. Better Homes and Gardens, p. 24)

New Life for a Centenarian. A Pennsylvania stone house of pre-Revolutionary vintage remodeled into a simple home for 1946 living. Photos, floor plans. (Aug. Better Homes and Gardens, p. 28)

Corner Windows Bring the Outside In, Winetka, Ill.—TRAVELLETTI & SUTER, ARCHITECTS. Large windows at each corner of this 2-story modern house take full advantage of the view and provide maximum light and adequate wall space within. Photos. (Aug. Better Homes and Gardens, p. 36)

Stone Georgian, Mt. Royal, Que.—RANDOLPH C. BETTS, ARCHITECT. A house of Georgian design planned for an unusual site, level with the street at the front, while dropping a whole story in the rear. Photos, floor plans. (Aug. Canadian Homes and Gardens, p. 22)

French-Provincial Lineage, Montreal, Que.—LUKE AND LITTLE, ARCHITECTS. Photos, floor plans. (Aug. Canadian Homes and Gardens, p. 23)

Functional Modern, Montreal, Que.—A. LESLIE PERRY, ARCHITECT. Photos, floor plans. (Aug. Canadian Homes and Gardens, p. 24)

Mansard Up-to-Date, Hampstead, Que.—MELVILLE MILLER, ARCHITECT. Photos, floor plans. (Aug. Canadian Homes and Gardens, p. 25)

Chatelaine House #2—CHRYSTIE L. DOUGLAS, ARCHITECT. 2-floor, 3-bedroom homes of Colonial style, with main rooms concentrated at the rear for privacy, in line with contemporary planning. Model photos, floor plans. (Aug. Canadian Homes and Gardens, p. 76)

New Structural Forms: A Prefabricated House from France. Constructed on a metal platform supported by six pillars, all panels of this house are of metal covered with insulating material, but for those open ones for doors and windows, which may be in timber, metal, or fibrocement. Photos, construction details. (June Domus, p. 28)

Production of Prefabricated Aluminum Houses — HIDUMINIUM APPLICATIONS, AIROH TECHNICAL COMMITTEE. Only 40 man-hours are needed to assemble this aluminum house, whose basic structure is a frame with roof trusses, built up of extruded aluminum sections, described as the English design most highly finished in the factory. Photos, floor plans. (July Journal of the R.I.B.A., p. 402)

House at Seattle, Wash.—JOHN T. JACOBSEN, ARCHITECT. A contemporary, hillside house designed on three levels, organized vertically in both plan and details. Photos, floor plans. (Aug. Progressive Architecture, p. 62)

House at San Francisco, Calif.—DINWIDDIE & HILL, ARCHITECTS. A modern city house with its main rooms to the rear to take advantage of the view to the east, in effect two small apartments, one above the other, thereby an efficient home for one or possibly two families. Photos, floor plans. (Aug. Progressive Architecture, p. 67)

Year 'Round House by the Sea, Malibou Encinal, Calif.—HETH WHARTON, ARCHITECT. A modern stone tile house perched on a high steep cliff, an integral part of its site. Photos, floor plans. (Aug. The American Home, p. 18)

(Continued on page 122)

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GUIDE

(Continued from page 120)

A Weekend House in Calif., Lake Arrowhead—R. M. SCHINDLER, ARCHITECT. A 2-floor house of timber and local stone, the living room rising two stories in height, and the side of one of the bedrooms on the second floor thus forming a balcony overlooking it. Photo, section, floor plans. (The Architects' Journal for July 25, p. 66)

Project for a Weekend House, Imperial Valley, Calif.—FRANK LLOYD WRIGHT, ARCHITECT. A project for a weekend bungalow in tule-mat, woven of bulrushes and galvanized wire, set on a concrete floor slab, with sliding doors of cellophoned screening. Photo, floor plans. (The Architects' Journal for July 25, p. 67)

INDUSTRIAL

Factories

Marco Productions Pty, Ltd., Sydney Australia—DAVID W. KING, ARCHITECT. A modern building, called a "Clothing Production Unit" by the company, designed with spacious and pleasant interior, to avoid the unattractive implications of a "factory" Photos. (May Building and Engineering, p. 26)

Plants

Bromo-Seltzer, Ltd., Toronto—EARLE C. MORGAN, ARCHITECT. A 3-story building of precast terrazo and black granite chips; cleanliness, essential to the manufacture of the product, was achieved by eliminating open windows and installing an air conditioning system and glass blocks for natural lighting. Photos, floor plans. (July Journal of the R.A.I.C., p. 170)

INTERIORS

Built-in Lavatory, Mirror, and Lighting Fixture—McSTAY JACKSON CO., DESIGNERS. Photo, selected details. (July Progressive Architecture, p. 69)

Planting Window, Heating, Lighting—McSTAY JACKSON CO., DESIGNERS. Photo, selected details. (July Progressive Architecture, p. 71)

Furniture

The Furnishing of a Flat—SOFIA MAZZOLENI BADONI, ARCHITECT. Some solutions to problems arising in medium-sized flats, as designed for women by a woman. Photos, floor plans. (May Domus, p. 12)

The Situation in Furniture—L. FRATINO. A thorough renewal in domestic furniture is widely felt as necessary, says the author, the theme to be, what is not necessary must be abolished. Photos. (May Domus, p. 15)

Bookshelves—V. MAGISTRETTI, ARCHITECT. An easily assembled unit of six shelves, fastened together by a small piece of tube covered with rubber, upon half of which the shelf is placed, while the second half is used to fix the former to the frame. Photos, construction details. (May Domus, p. 18)

MEMORIALS

Million Dollar Recreation Plant Planned as War Memorial, North Little Rock, Ark.—This "recreation plant" is to be a spacious modern memorial building, containing a sports arena to seat over 6,000 persons. Site plan, perspective. (July The American City, p. 82)

Community War Memorial Coliseum Successfully Financed—EGGERS & HIGGINS, ARCHITECTS. Most of the estimated two-million cubic foot capacity of this modern coliseum will be devoted to a great indoor arena, to be used for sports events, livestock shows, etc. Rendering. (Aug. The American City, p. 71)

In Memoriam, 1945, Milan, Italy—ROGERS, PERUSSUTTI & BELGIOJOSO, ARCHITECTS. A simple memorial to the Italian workers deported to Germany who died there; of welded tubular steel frame painted white, on a cruciform base of stone and marble. Photos. (The Architects' Journal for July 25, p. 56)

(Continued on page 124)

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GUIDE

(Continued from page 122)

PLANNING

City

Town Planning in Russia: Proposals for the Redevelopment of Novgorod, Smolensk, and Novorossisk—D. V. SCHUSEF, G. GOLZ, ARCHITECTS. The reconstruction plans here reviewed are varied, and show the general trend of current planning principles in the U.S.S.R. Renderings, maps. (The Architects' Journal for July 11, p. 25)

The City of London: Basic Proposals for Reconstruction and Replanning—DR. C. H. HOLDEN, PROF. W. G. HOLFORD, PLANNING CONSULTANTS. Article on the recently published Interim Report for replanning of London, including an explanatory summary which emphasizes and explains the salient features; verbatim extracts from important sections; and comments made by the Improvements & Town Planning Committee about the Report. Photos, diagrammatic maps. (The Architects' Journal for July 18, p. 43)

Milan, Outline Proposals for the Replanning and Reconstruction. The outline plan prepared by a group of well known Italian architects to enable the life of the city to proceed until detailed plans are drawn up. Photos, site plans. (The Architects' Journal for Aug. 8, p. 97)

Traffic

Along the Waterfronts. Cities from coast to coast plan shoreline and harbor improvements. Photos, maps. (Aug. The American City, p. 92)

Crystal Palace Competition: An Analysis of the Traffic and Layout Problems—ASSOC. FOR PLANNING AND REGIONAL RECONSTRUCTION. The broad aspects of the problems of rail, road, and foot traffic to and within the site of the Palace are discussed in this article, with references to entries in the recent competition to illustrate the points made. Maps, sketches. The Architects' Journal for July 25, p. 63)

United Nations

A World Center for the United Nations—LEWIS MUMFORD. Three exciting proposals for a permanent home for the UN offered by the eminent authority on city planning. (Aug. Progressive Architecture, p. 70)

PUBLIC BUILDINGS

Facades According to Orientation: Ministry Building, Rio de Janeiro, Brasil—An interesting "plastic" expression is achieved in this building, designed with the inspiration and advice of Le Corbusier, the sunny side being protected with movable horizontal winglets made of asbestos sheatings painted blue. Photos. (June Domus, p. 31)

Harlem Branch, N. Y. Public Library, New York City—LOUIS ALLEN ABRAMSON, ARCHITECT. An addition to an existing library, this building serves as a center of the intellectual, cultural, and educational interests of a large community, and accordingly was designed simply and unostentatiously to create the informal atmosphere desired. Photos, floor plans. (Aug. Progressive Architecture, p. 56)

RECREATION

Playgrounds

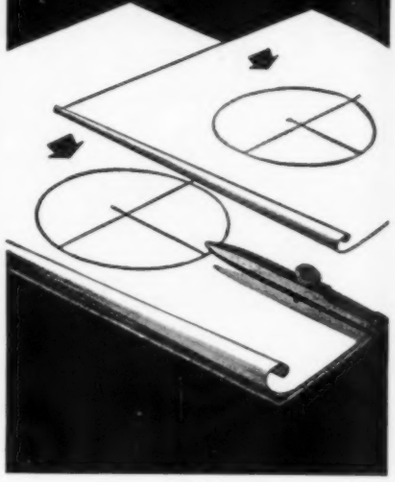
Playground Project, Oakland, Calif.—THEODORE OSMUNDSON, JR., LANDSCAPE ARCHITECT. Child's play area developed with provisions for facile transformation into a livable outdoor area when the child grows older. Rendering, plot plans. (June Arts and Architecture, p. 34)

Skating Rinks

Skating Rink, Okla.—JOE BOAZ, ARCHITECT. Planned for a small town, this concise and efficient design for an ice skating rink fits unobstrusively into a business neighborhood. Renderings, sketches, floor plans. (Aug. The Architectural Forum, p. 74)

(Continued on page 126)

Tracing cloth that defies time.



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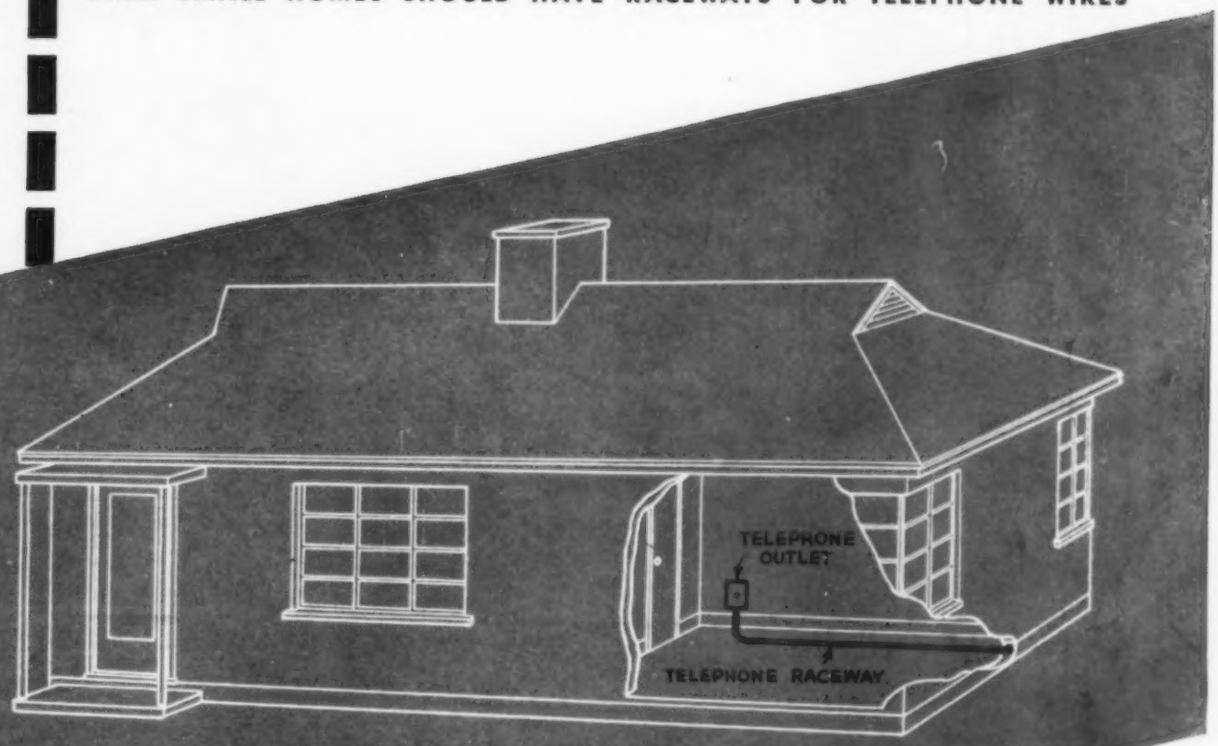

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[THE CASE OF THE ONE-STORY HOUSE WITHOUT A BASEMENT]

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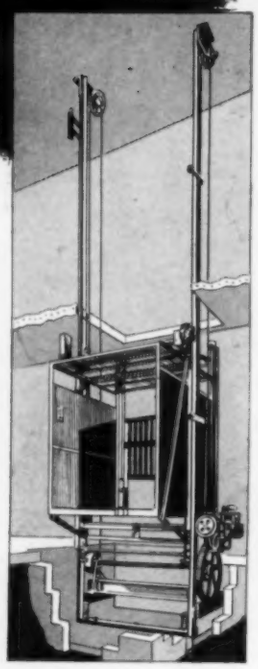

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GUIDE

(Continued from page 124)

RELIGION

Churches

Highland Park Baptist Church, Chattanooga, Tenn.—GILL & BIANCULLI, ARCHITECTS. A new church designed objectively to "fulfill the function of a tabernacle without involving expense to provide traditional ecclesiastic features;" containing a hall for 1500, classrooms, provisions for infants during church time, and broadcasts. Renderings, floor and plot plans, cross section. (Aug. Progressive Architecture, p. 60)

RESTAURANTS

4 Remodeled Restaurants:

Dunhall's, New York City—HERMAN H. SEIGEL, ARCHITECT. Complete reconstruction and bold handling of pattern and color helped make this old 2-level restaurant a new success. Photos, floor plans. (Aug. The Architectural Forum, p. 98)

The Oyster Loaf, San Francisco, Calif.—HERTZA AND KNOWLES, ARCHITECTS. A huge front window, variation in floor levels and large open areas, and easy stairs make the mezzanine level attractive to the patrons, a necessity for achieving a high seating capacity in this high-rental building. Photos, floor plans. (Aug. The Architectural Forum, p. 100)

Hector's Bar-Cafe, New York City—GEORGE C. RUDOLPH, ARCHITECT; H. R. PORTER, ASSOCIATE. Chief feature here is the bar itself, with a lighted glass front clearly visible from the street. Photo, floor plans. (Aug. The Architectural Forum, p. 102)

Solly Krieger's—HERMAN H. SEIGEL, ARCHITECT. A quiet and comfortable mood achieved in a small restaurant on a minimal budget. Photo, floor plans. (Aug. The Architectural Forum, p. 102)

PERIODICALS NOTED IN THIS ISSUE:

ARCHITECT AND ENGINEER, 68 Post St., San Francisco 4, Calif.

ARCHITECTURAL RECORD, 119 W. 40th St., New York, N. Y.

ARTS AND ARCHITECTURE, 3305 Wilshire Blvd., Los Angeles 5, Calif.

BETTER HOMES AND GARDENS, 420 Lexington Ave., New York, N. Y.

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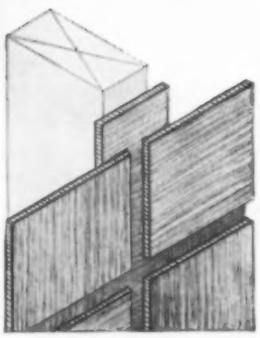
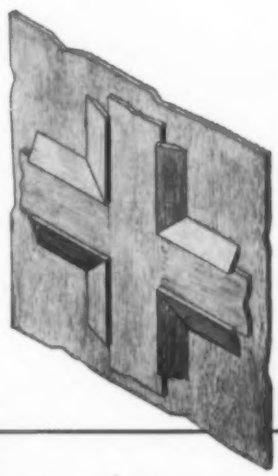


← *Showing detail of recessed-joint construction.*

Detail of Stile and Rail panel effect. (These suggestions are but two of many shown in the Weldwood Application Booklet.) →



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FLOORING

CLEAR SPECIFICATIONS FOR RESILIENT FLOORS

Much attention has been directed recently toward the achievement of brevity in specification writing. While the merits of brevity are obvious, nearly everyone will agree that it is unwise to achieve brevity at the sacrifice of clarity and mutual understanding between the architect and the bidding contractor.

Frequently misunderstandings between architects and resilient flooring contractors have been due to the specification writer's incomplete understanding of the details which affect labor and material costs.

While it would be impractical for a specification writer to become familiar with all such details, there are a few principles which he should understand in order to write unmistakably clear specifications. These are: 1, the factors which cause price variations in the different materials; 2, the factors which affect the contractor's labor costs; and 3, the requirements for preparation of subfloors.

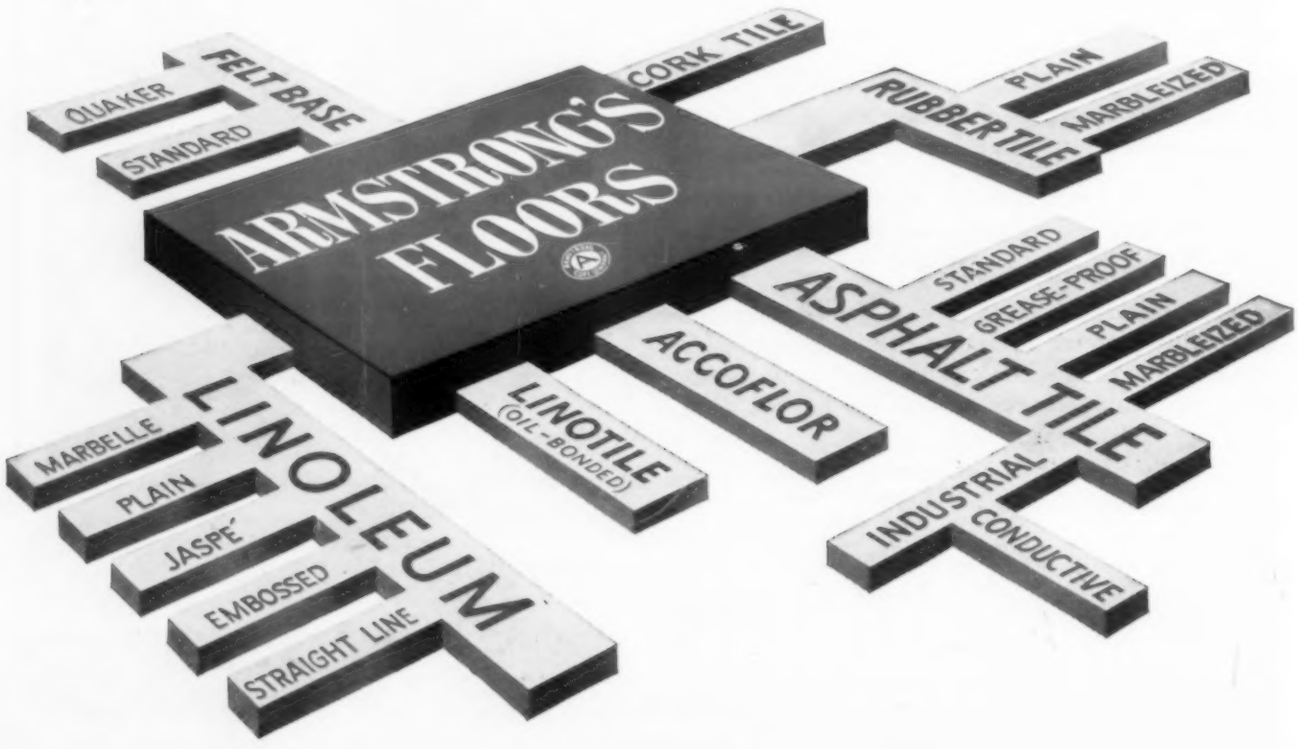
1. PRICE VARIATIONS IN FLOORING MATERIALS

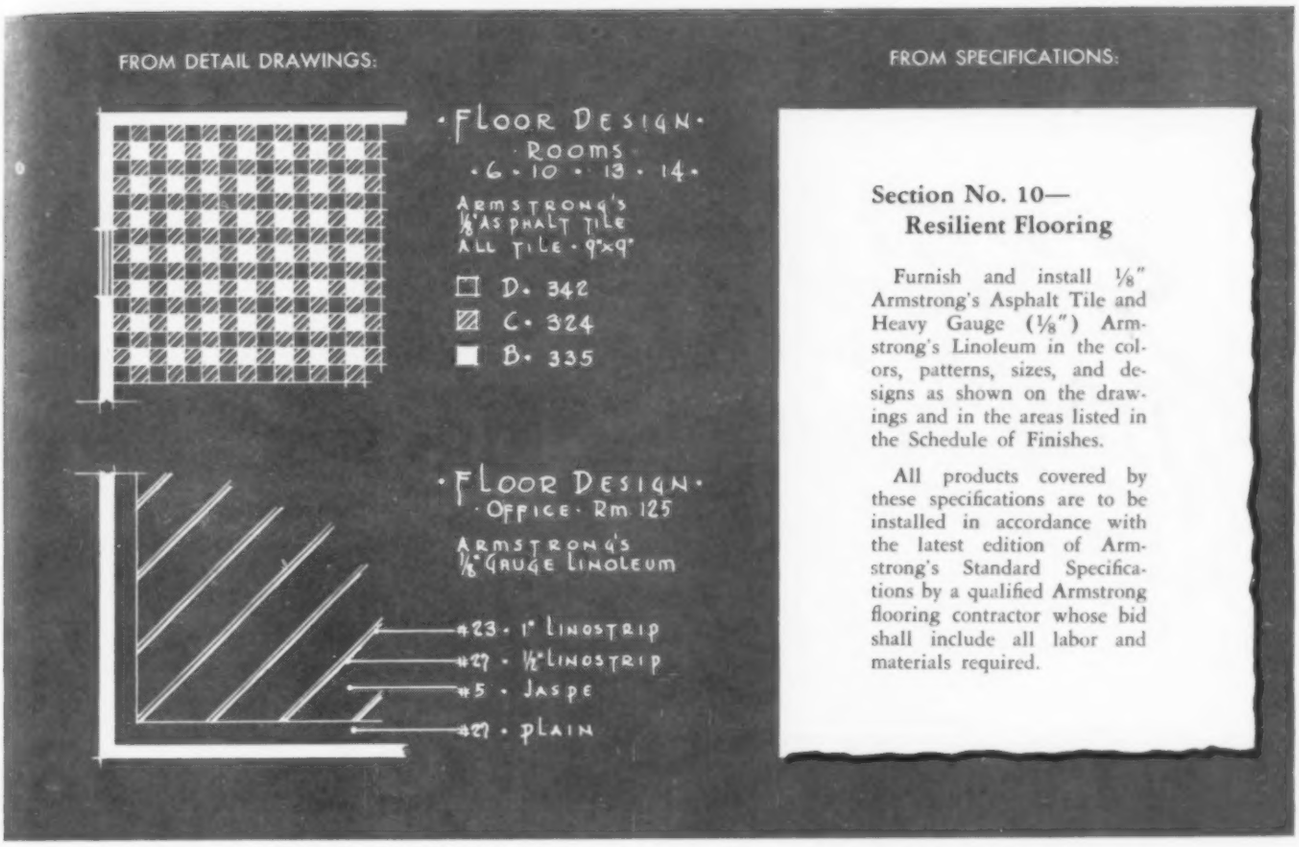
While most of the complexities of flooring material pricing are of no great concern to the architect, it is important that he be able to classify the materials so that all bidding contractors will base their estimates on the same standards.

Most obvious of the factors which govern resilient flooring material prices is that of gauge or thickness. But no less important—and more often omitted from specifications—is the designation of type or color-group. In linoleum, for example, types are differentiated by characteristics of appearance. Linoleum types are "plain," "jaspé," "Marbelle," "straight line inlaid," and "embossed inlaid," and each type has a different price. There is also a difference in price between "regular" and "special" colors within the "plain" type. Special colors are the more costly.

Asphalt tile and rubber tile vary in cost according to colors. The lighter colors are the highest in cost. The color groupings, which are also price groupings, of asphalt tile are A, B, C, and D, with group A consisting of plain dark colors, Group B of dark marbleized colors, Group C of medium value colors, and Group D of the lightest colors.

It is thus obvious that such factors as color-group and type of material must be clearly specified. One of the clearest ways of doing this is by outright use of one manufacturer's color numbers since colors vary to some extent among the various manufacturers. However, if the architect cannot use proprietary names or numbers, or if a floor design cannot be selected in advance, it is important in providing a standard basis for bids that a clear understanding be given of the amount of each material to be used. For example, *". . . Asphalt tile design to be composed of color-groups: B—25%, C—50%, and D—25%," or ". . . Linoleum in rooms 110 and 114 to be 1/8" jaspé with 12" borders of 1/8" plain regular colors."*




FROM DETAIL DRAWINGS:
·FLOOR DESIGN·
·ROOMS
·6·10·13·14·
ARMSTRONG'S
⅛"ASPHALT TILE
ALL TILE·9"x9"
D·342
C·324
B·335
·FLOOR DESIGN·
·OFFICE·RM.125
ARMSTRONG'S
⅛"GAUGE LINOLEUM
#23·1" LINOSTRIP
#27·½"LINOSTRIP
#5·JASPE
#27·PLAIN
FROM SPECIFICATIONS:
Section No. 10—
Resilient Flooring
Furnish and install ⅛" Armstrong's Asphalt Tile and Heavy Gauge (⅛") Armstrong's Linoleum in the colors, patterns, sizes, and designs as shown on the drawings and in the areas listed in the Schedule of Finishes.
All products covered by these specifications are to be installed in accordance with the latest edition of Armstrong's Standard Specifications by a qualified Armstrong flooring contractor whose bid shall include all labor and materials required.

This example of a brief specification with detail drawings indicates one method of combining brevity with clarity in specification writing. The use of manufacturer's color numbers eliminates the need for full descriptions of the material. From the drawings which supplement the specifications the bidding contractor can quickly see the complexity of the floor design and other details of the material and the job.

2. VARIATIONS IN CONTRACTOR'S LABOR COST

In some cases, architect's specifications fail to give the bidding contractor a clear idea of the complexity of the floor design or other details he may need in order to figure his labor costs accurately. As a result, it may happen that the accepted low bid is based on an estimate of fewer man-hours than will actually be required for the job. In such cases, there is sure to be an expenditure of time and words—if not money—before the misunderstanding is settled.

Where the floor design is too complex for adequate description in the specifications, architects have found it most satisfactory to show on the detail drawings at least one floor design that is typical of those to be installed.

As shown in the example above, the materials may simply be named in the specifications, noted as to location in the schedule of finishes, and shown as to design in the drawings, which can also include details of colors, patterns, and dimensions. The important purpose of these drawings, from the contractor's point of view, is that they give him a clear understanding of the special requirements of labor, upon which he must bid.

3. UNDERLAYMENT REQUIREMENTS IN REMODELING JOBS

Methods of repairing old subfloors to provide a suitable base for flooring materials are sometimes left entirely up to the contractor. Such specifications make a statement to the effect that ". . . the old subfloor shall be repaired to provide a suitable base for resilient flooring." This practice invariably invites the least expensive method of subfloor preparation, seldom to the best interests of the client. From the contractor's point of view, there is little choice but to bid on least expensive methods—because competition forces him to.

On remodeling work which requires the flooring contractor to replace badly worn boards, sand floors, fill cracks in concrete, or provide an underlayment, it is advisable to list all of this work in the specifications. The type of underlayment and the minimum thickness should always be clearly specified.

New subfloors usually present no problem, providing they are structurally sound. Most architects have found, however, that the resilient flooring contractor should be required to notify the architect in writing if he finds any conditions of the subfloor not suitable for resilient flooring, and with the added stipulation that failure to do so will signify acceptance of these conditions.

It is not necessary for the architect to specify how the flooring contractor should install the flooring materials. It is far safer and more complete to specify that materials be "installed in accordance with manufacturer's latest printed instructions."

With the requirements of materials, labor, and extent of work to be done clearly stated, it is not necessary for the contractor to interpret or guess. Well written specifications enable all contractors to submit realistic bids, based on uniform ideas.

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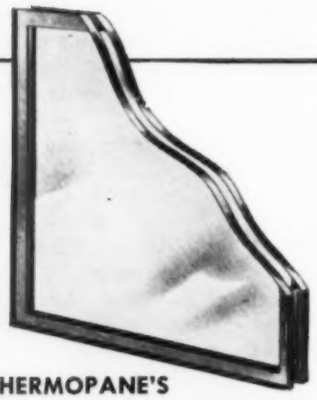

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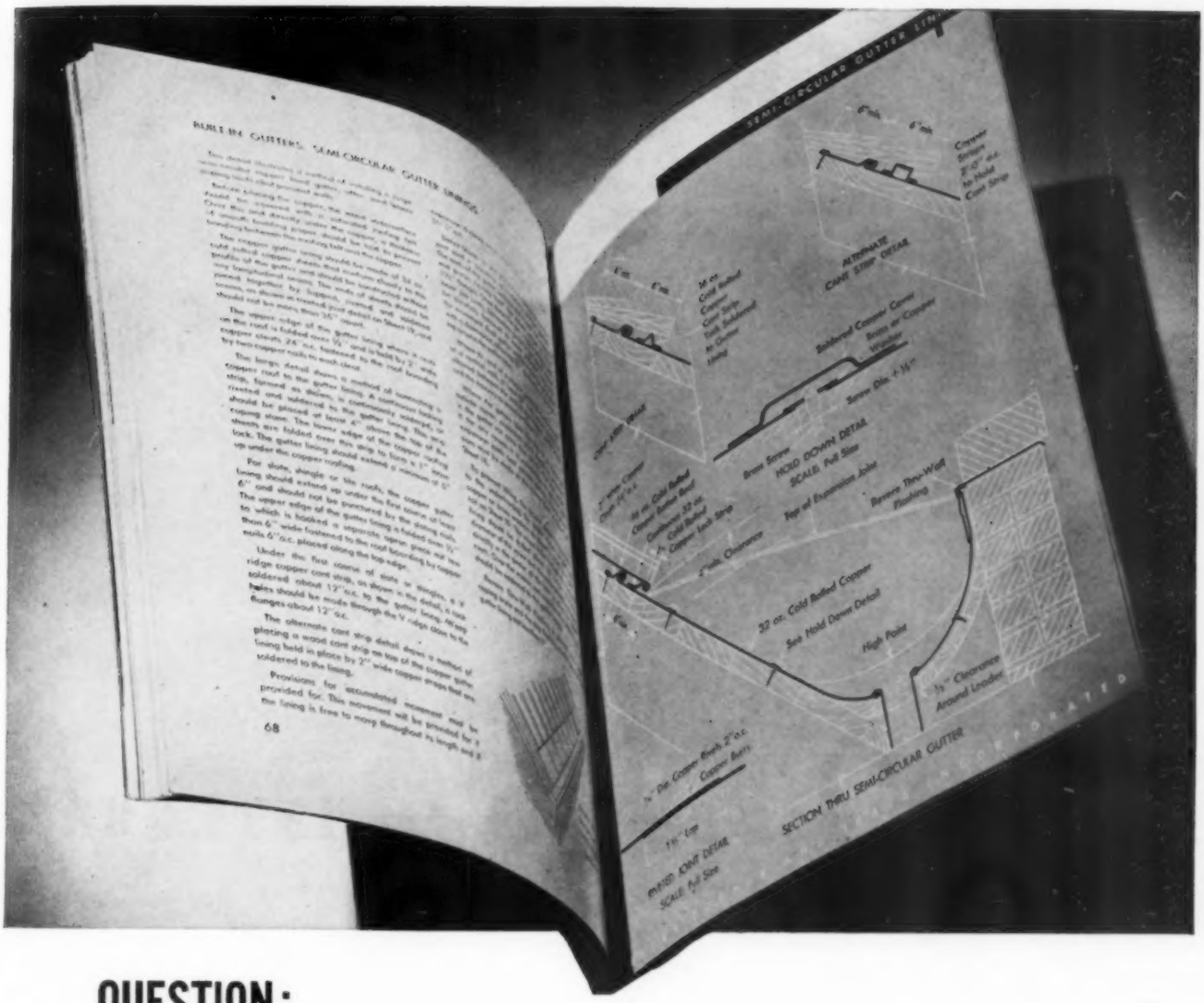

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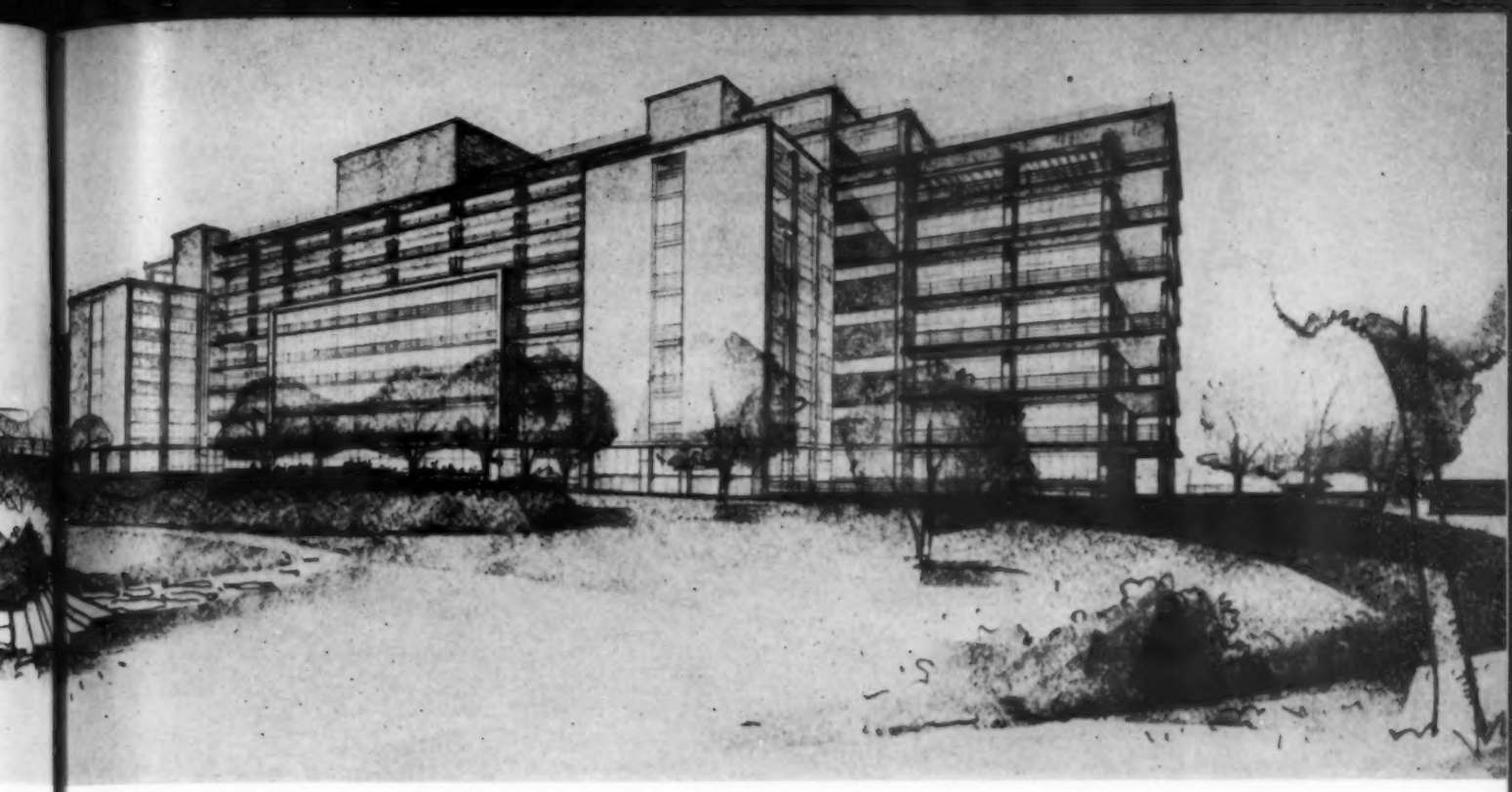

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THE AUTHOR

Besides being a well-known hospital consultant, Mr. Rosenfield was for many years the architect in charge of hospital design for the City of New York.

Mr. Rosenfield has conducted a course on hospital administration at New York University and has written numerous articles for architectural and hospital magazines. Upon graduation from Harvard in 1922, Mr. Rosenfield worked with E. F. Stevens, well-known hospital consultant. For many years, prior to the death of Dr. S. S. Goldwater, Commissioner of Hospitals, New York City, Mr. Rosenfield worked in close relationship with him.

Among Mr. Rosenfield's important recent assignments is a program study for the development of integrated health and hospital facilities in Puerto Rico.

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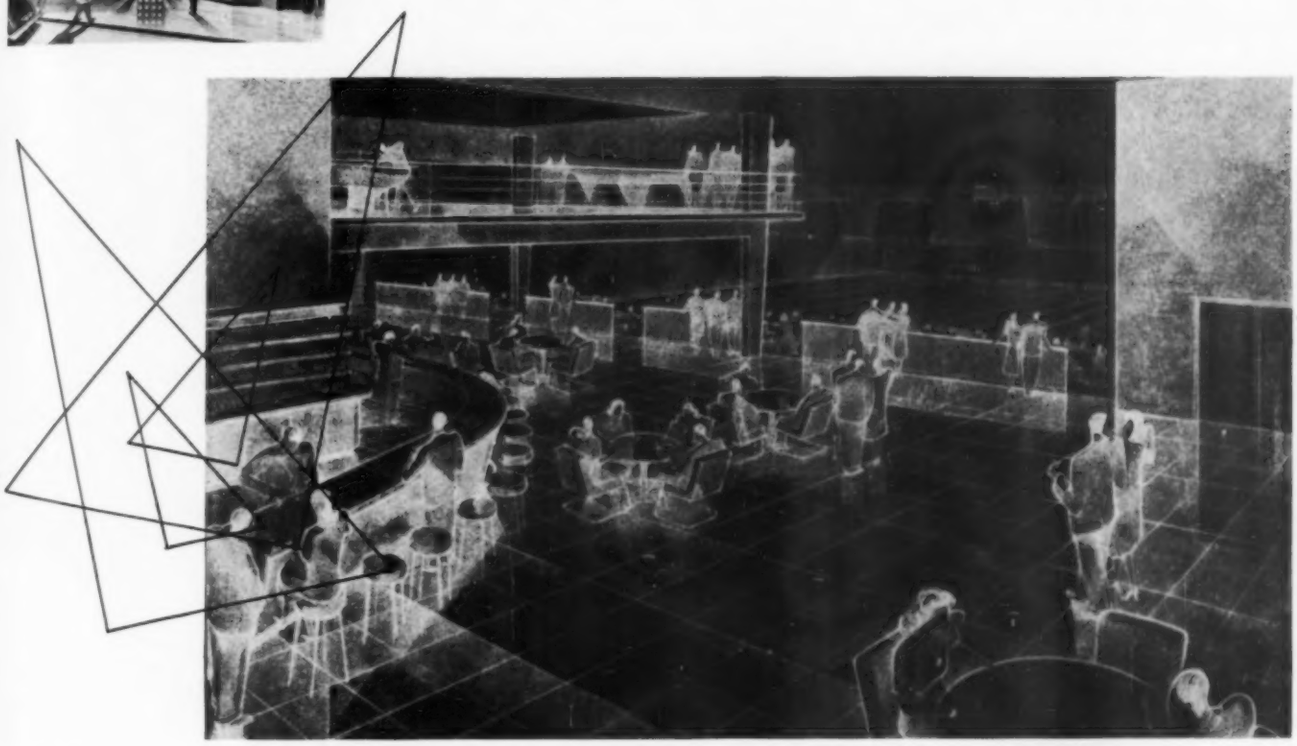

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OBSERVATIONS

NOW THAT CLAUDIA LOVES DAVID, WHO PRACTICES ARCHITECTURE IN THE TWENTIETH CENTURY FOX MANNER, ROBERT YOUNG WILL UNDOUBTEDLY BECOME THE AMERICAN PUBLIC'S IDEAL ARCHITECT. This will be all to the good if Mr. Young replaces in the popular imagination that superman hero of Ayn Rand's *The Fountainhead.*

Architects in literature have been scarce recently. Galsworthy pictured the classic eclectic in *The Forsyte Saga,* but who (aside from this Rand woman) has dramatized the modern designer? I do recall the hero of Elmer Rice's *Dead End,* who aspired to become a housing specialist. Oh yes, and there was a character in a detective story I read recently who sat at his drafting board absently tapping his teeth with a T-Square.

Incidentally, the picture, *Claudia and David,* ends with the architect and his wife about to leave for an A.I.A. convention in California. This is flying in the teeth of the Southern California chapter, whose *Bulletin* reports that a discussion of the advisability of inviting the 1947 convention to Los Angeles resulted in a vote "without equivocation but unanimously: NO." Afraid that Robert Young would take over, eh?

•

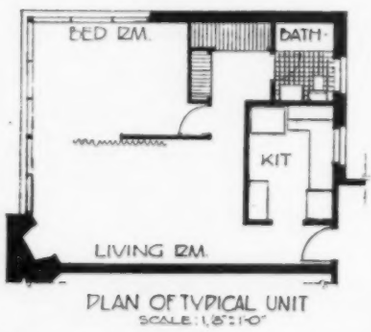
RESPONSES TO MY ROUGH REMARKS ABOUT THE SHODDY APPEARANCE OF MANY ARCHITECTS' OUTER OFFICES HAVE INCLUDED PHOTOGRAPHIC PROOF THAT A GOOD NUMBER OF ARCHITECTS HAVE SOLVED THE PROBLEM ATTRACTIVELY. Best entry to date comes from David I. Abrahams & Associates, who successfully remodeled building space which had been unrented for fifteen years because "neither the owner nor prospective lessors could visualize the possibilities." Here the architect has turned his ability to improve an unsatisfactory environment—beyond the expectations of lay imagination—to his own advantage.

•

WE HAVE SUPPORTED WILSON WYATT'S VETERANS' HOUSING PROGRAM, AS THE MOST LOGICAL, THE MOST LIKELY TO SUCCEED, AND THE MOST HONEST EFFORT THAT COULD BE MADE UNDER THE CIRCUMSTANCES. Criticism of the program —the argument that lifting ceilings would result in cheaper houses, the objection to prefabrication on the part of the builders, the objection to individual houses on the part of large operators, the objection to public housing on the part of property owners—all these have seemed to us to be inspired by specific interests rather than broad analysis.

Now, however, we are perturbed. Our June issue was devoted to the architect's part in the emergency program, and Mr. Wyatt wrote for us an inspirational piece calling for well planned housing, in addition to enough housing. To us this means housing planned to fit the needs, fit the site, fit the climate. We are distressed because we learn from an Austin, Texas, firm of Architects (Jessen, Jessen & Millhouse—Alton E. Greeven) that the plan pictured has been rejected as not complying with H.H. minimum requirements. According to the San Antonio District Office of the FHA, "privacy must be maintained in each living unit. That is, the bathroom must not open directly into the living room. Bedrooms and living rooms must be separated by a door. Access to a bathroom must be made without passing through another habitable room or area."

If the returned G.I.'s budget and the present inflated cost of building can be brought together, it will be done only through intelligent, progressive, planning. If the National Housing Agency wishes to avoid criticism of "bureaucracy," it must make sure that FHA regulations are not interpreted at the local level in a way to discourage intelligent, progressive planning. Come, Mr. Wyatt, do something about this and let us get back in the cheering section.



PLAN OF TYPICAL UNIT
SCALE: 1/8"=1'-0"

Says FHA: Plans do not comply with regulations. Say architects: Conditions of climate do not fit themselves to regulations.

WE ARE FILING UNDER WOODS, INVISIBLE BECAUSE OF TREES, the responses we got when we called to the attention of several important people Lewis Mumford's proposal that U.N. headquarters be located in an existing world center (PROGRESSIVE ARCHITECTURE, August). The *New York Times* had picked up the article and made quite a story of it in one of its editions. The A.I.A. men advising U.N. on this matter were too busy (advising, presumably) to comment. Sir Angus Fletcher, chairman of the U.N. Headquarters Commission investigating and recommending "sites," wrote that Mumford's argument would be passed on to a "Planning Commission to be appointed later." It is later than they think.

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A MOST UNUSUAL SORT OF PUBLICITY WAS ATTAINED BY AN ARCHITECTURAL FIRM RECENTLY, when Delano and Aldrich threatened suit because of cancellation of contract for their designs for the Idlewild Airport buildings. In order to achieve a less expensive arrangement than the formal scheme that D. & A. have been working on for some years, New York City has retained other architects who apparently have a six months' deadline. Is this annoying tendency to get things done quickly and simply, fostered during the war, going to hound us in the postwar era?

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I THINK ONLY ONE THING IS WORSE THAN A BLIND PREJUDICE AGAINST MODERN DESIGN, AND THAT IS MISUNDERSTANDING OF THE AIMS, METHODS, AND POTENTIALITIES OF RATIONAL PLANNING. Much more harm can be done at this stage in our development by a bit of modernistic stylism in a conspicuous place than by an unobtrusive traditional design. The saddest moments we have here at PROGRESSIVE ARCHITECTURE are spent contemplating pictures of badly designed "modern" buildings, thinking how much still needs to be learned. Our happiest moments come when a handsome bit of architecture, integrated, honest, and useful, comes from an unsuspected source. Since we believe that man's environment will be bettered as rational planning gains acceptance, we can measure social advance by the ratio of our periods of depression to our periods of elation. At the moment we check out at about 1:3, a good concrete mix, but only a fair omen for a better world.

Thomas H. Creighton